Strengthening TB and HIV & AIDS Response in Eastern Uganda (STAR-E) Project

ANNUAL REPORT FOR THE PERIOD

October 2012 – September 2013

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STAR-E

STAR-E PROJECT, EASTERN UGANDA

District–Based HIV/TB Program

Cooperative Agreement # 61 7-A-00-09-00006-00

ANNUAL REPORT FOR THE PERIOD
October 2012 – September 2013

Management Sciences for Health

Plot #36 Bunghokho Road

Senior Quarters

Mbale, Uganda

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ACRONYMS AND ABBREVIATIONS

AIDS	acquired immune deficiency syndrome
ANC	antenatal care
ART	antiretroviral therapy
ARV	antiretroviral medicine
ASSIST	Applying Science to Strengthen and Improve Systems (USAID)
ATGWU	Amalgamated Transport and General Workers Union
CB-DOTS	community-based DOTS
CD4	cluster of differentiation 4
CDR	case detection rate
CPHL	Central Public Health Laboratory
CSO	civil society organization
CSW	commercial sex worker
CT17	MOH's coordination team of 17 partners
DBM	district-based mentorship
DBS	dried blood spot
DHMT	district health management team
DHO	district health officer
DHT	district health team
DLFP	district laboratory focal person
DMC	district management committee
DOP	district operational plan
DTLS	district TB and leprosy supervisor
DU	diagnostic unit
EID	early infant diagnosis of HIV
eMTCT	elimination of mother-to-child transmission of HIV
FSG	family support group
GAAP	Generally Accepted Accounting Practices
HAART	highly active antiretroviral therapy
HC	health center
HCT	HIV counseling and testing
HFA	health facilities assessment
HIV	human immunodeficiency virus
HMIS	health management information system
HRH	human resources for health
ICASA	International Conference on AIDS and STIs in Africa
ICF	intensified case finding
IEC	information, education, and communication
JCRC	joint clinical research centre
JMS	joint medical stores
LATH	Liverpool Associates in Tropical Health
LF	linkage facilitators
LQAS	Lot Quality Assurance Sampling
M&E	monitoring and evaluation
MAKSPH	Makerere School of Public Health
MARPs	most-at-risk populations
MDR-TB	multidrug-resistant TB
MEEPP	Monitoring and Evaluation of Emergency Plan Performance
MGLSD	Ministry of Gender, Labor, and Social Development
MMS	medicines management supervisor
MOH	Ministry of Health
MOLG	Ministry of Local Government
MOVE	model for optimizing volume and efficiency
MSH	Management Sciences for Health
MTCT	mother-to-child transmission
MUAC	mid-to-upper-arm circumference
MUWRP	Makerere University Walter Reed Project

NGO	nongovernmental organization
NLF	national LQAS facilitator
NMS	national medical stores
NU-HITES	Northern Uganda Health Integration to Enhance Services
OVC	orphans and vulnerable children
PBF	performance-based financing
PCR	polymerase chain reaction [testing]
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PITC	provider-initiated HIV testing and counseling
PLHIV	People living with HIV
PMTCT	prevention of mother-to-child transmission
PwP	prevention with positives
PY	project year
QI	quality improvement
SCHW	sub county health worker
SDS	Strengthening Decentralization for Sustainability [Project]
SLMTA	Strengthening Laboratory Management through Accreditation
SMC	safe medical circumcision
SMS	short message service [technology]
SPAI	service performance assessment and improvement
SPARS	supervision, performance assessment, and reward/recognition strategy
STAR-E	Strengthening TB and AIDS Response–Eastern Region
SUNRISE	Strengthening the Ugandan National Response for Implementation of Services for OVC
SURE	Securing Ugandans' Right to Essential Medicines
TB	tuberculosis
TOTs	training of trainers
TSR	treatment success rate
TWG	technical working group
USAID	United States Agency for International Development
USD	US dollars
USF	Uganda Sanitation Fund
USG	US Government
VHT	village health team
VIA	visual inspection with acetic acid
WHO	World Health Organization

EXECUTIVE SUMMARY

The STAR-E (Strengthening TB and AIDS Response – Eastern Region) Project in Project Year 5 (October 2012 - September 2013) has consolidated its role as a reliable and valuable partner to government institutions, Ministry of Health, non-governmental organizations and civil society in the fight against HIV&AIDS and TB in twelve districts in mid-Eastern Uganda. In this past year, HIV&AIDS and TB services in the region have increased in scope, quality, coverage and accessibility through STAR-E support to 154 health facilities. STAR-E has brought comprehensive and integrated health services closer to the community. Critical services such as HIV testing and counseling (HTC), prevention of mother-to-child transmission of HIV (PMTCT) and antiretroviral therapy (ART) for pregnant mothers are now offered in all HCs III and a few HC IIs, in addition to hospitals and HCs IV. The project continued to fully engage local district governments to ensure sustainability and full ownership when the Project ends in March 2015. The following are key highlights from PY 5:

HIV counselling and testing (HCT)

Significant progress has been made in increasing uptake of HCT services in the region. The 2013 LQAS community survey found that 40% of people aged 15-49 reported having received an HIV test in the last year, up from 30% 2011. In total, 355,160 individuals were tested during FY 2013 at the HCT outlets supported by STAR-E. Disruptions in the supply of HIV test kits posed a great challenge this year. The overall HIV prevalence at the various HCT sites was at 2.9%, which is lower than the estimated overall HIV prevalence of 4.1% for the Eastern region.

To achieve these results, STAR-E expanded provider-initiated counseling and testing in 33 more facilities through providing on-the- job training to 217 health workers. The Project integrated HTC services to reach discordant couples, children, TB patients and clients undergoing safe male circumcision In addition, key populations at higher risk for HIV infections accessed HCT services through the civil society organizations, the AIDS Information Centre and Amalgamated Transporter and General Workers Union.

Prevention of mother-to-child transmission (PMTCT)

In project year 5, over 92% of all pregnant women attending antenatal services were tested for HIV at some point during their pregnancy, A total of 117,268 pregnant mothers have been counseled, tested for HIV, and received their test result. Of these 2.9% (3,372) tested positive, while approximately 1,400 knew their HIV-positive status before accessing ANC. Overall, 4,346 HIV-positive pregnant women were given PMTCT prophylaxis at the supported facilities (91% of all those HIV-positive).

PMTCT services for pregnant women were greatly enhanced by rolling out the more efficacious PMTCT regimen known as Option B+ (in which all pregnant women are given HAART for life) to all supported facilities according to the new Ministry of Health (MOH) policy guidelines. The Project collaborated with district health teams to train over 1,000 health workers of different cadres from 154 facilities in the new protocol and supply sites with the necessary drugs, equipment and supplies. On August 16th, the Option B+ strategy was officially launched in the region at an event held in Tororo and attended by the First Lady of Uganda together with the American Ambassador to Uganda and over 5000 people.

Other Prevention

STAR-E interventions in HIV prevention continued to work with vulnerable groups, including key population known to be most at risk of HIV infection. During PY 5, the Project reached 9,827 people among the key target populations of commercial sex workers (CSWs), fisher folks and truck drivers in

selected districts. The activities included sexual behavioral change, risk reduction initiatives, condom promotion and distribution, and health education. Trained peer educators provided HIV-related information and linking them to services, especially counseling and testing.

Religious leaders and community-based volunteers continued to sensitize community members on combination prevention of HIV, with emphasis on HCT as the entry point into other service delivery such as safe medical circumcision, elimination of mother-to-child transmission of HIV, and AIDS care and support. They utilized social functions and places of worship as avenues to disseminate HIV/AIDS prevention messages and encourage followers to utilize nearby HIV/AIDS service points.

The Project's approach to promoting prevention with positives (PwP) emphasized combination prevention for all PLHIV and HIV sero-discordant couples as well as members of their families. In PY5, a total of 23,226 HIV-infected individuals (over 9,000 male and 14,000 female) were reached with the PwP intervention package. PwP-targeted activities were integrated into routine care, treatment and support services for the different categories of PLHIV (sero-discordant, young positives, and concordant couples) both at the health facilities and in the community. Cervical and breast cancer screening was expanded this year to all women of reproductive age as a routine service in the 12 facilities where health workers were trained. Previously, only HIV positive women and women in sero-discordant relationships were targeted for service.

Safe male circumcision (SMC) activities were intensified in the 22 project-supported static to increase the number of people accessing the service. This year the Project provided SMC to almost 74,000 males. Using mathematical modelling, this number of circumcisions could avert 1,900 new HIV infections. The Project achieved these results by engaging dedicated teams of purposely trained staff who conducted SMC activities in lower health facilities, surgical camps and outreaches to supplement the routine surgical activities of static sites and increase volume and efficiency of circumcision services. This activity was challenged by stock outs of SMC kits during the first half of the year.

Care and Treatment

A total of 8,089 new HIV-infected clients were enrolled into chronic care during the year out of the 11,971 new HIV-positive cases (68%), with more people linked into care over time especially after the deployment of linkage facilitators. The Project supported chronic care in both facilities and communities emphasising the engagement of people living with HIV to assist fellow clients accessing services. The assiduous work of linkage facilitators and case managers has continued in providing referral for further services, adherence counselling, follow up, and psychosocial support.

Enrolment of eligible patients into ART has improved in PY 5. The project-supported ART sites registered 4,326 new clients, bringing the total number of active clients on ART to 10,385. This is a 22% increase from 2012 and an over 200% increase from the 2010 number of active clients on ART. 360 children under age 15 years were newly enrolled into ART, for a total number of 916 children on ART, a 48% increase from last year.

Antiretroviral therapy (ART) services were strengthened at the original 36 sites and scaled up in 105 more facilities which are implementing Option B+ strategy. The critical focus was to reinforce sustainable mechanisms that promote the continuum of HIV care and treatment. Pediatric ART has received special attention with emphasis on recruiting more eligible children into care and treatment, following up HIV-positive infants for prompt referral and initiation of ART, and encouraging health workers to adopt clinically presumptive treatment of HIV exposed infants.

TB

This year in the STAR-E supported facilities, the TB treatment success rate reached 82 %, which is very close to the national target of 85%. The performance of TB-HIV indicators has been good: the proportion of TB patients tested for HIV stood at 93%, while the proportion of TB-HIV co-infected patients started on co-trimoxazole and ART was at 98% and 61% respectively. The TB case detection has stagnated around 50%, short of the national set target of 70%. Some of the reasons for the CDR stagnation include: low community awareness about TB and poor health seeking behavior; low suspicion index for TB among health workers; and under-utilization of the intensified case finding approach in both health facilities and communities.

TB support has maintained its focus on activities that contribute to the improvement of case detection rate, treatment success rate and Directly-observed Treatment Short course (DOTS). TB/HIV collaborative activities were also consolidated at district, health sub-district and facility level. Periodic TB and TB/HIV regional meetings have regularly taken place, offering the opportunity to District TB Leprosy Supervisors (DTLSs) and other partners to review performance, share experiences and jointly agree on how to overcome implementation challenges. STAR-E assisted all DTLSs to conduct quarterly support supervisions and mentorship to all health units. With regard to MDR-TB, STAR-E procured specimen carrier boxes for the TB specimen referral system to ensure they are available in all health facilities.

Health System Strengthening

In PY 5, the **LQAS component** completed the 2012 consolidated LQAS report, shared the 2012 survey experiences and planned for the 2013 surveys. It also provided technical support to district surveys for the Northern Uganda Health Integration to Enhance Services (NU-HITES), STRIDES for Family Health, and Stop Malaria projects. The component finalized the 31 indicators and tools for the orphans and vulnerable children (OVC) facility assessment that was first tested in the Mukono and then piloted in Sironko.

Various training materials and guidelines, including the LQAS manuals and quality assurance guidelines, were produced and used by the district teams during different district trainings. Seventy-three national LQAS facilitators received refresher training and were certified under the patronage of the Ministry of Local government. The database containing all LQAS survey data since 2003 was upgraded. Three regional information sharing meetings were organized and held in collaboration with IPs, districts and other partners to share experiences and good practices. They also provided opportunities to discuss strategies for institutionalization of LQAS methodologies.

A critical prerequisite for the strengthening of HIV/AIDS and tuberculosis services is a functional **laboratory** system in order to increase access and improve the general patient's management. During the year, STAR-E has supported specific activities in 115 facilities that have functional laboratory units and collaborated with the national supply chain through the National and Joint Medical Stores to ensure availability of the necessary laboratory reagents and supplies for HIV testing, CD4 counts, and other essential tests. A one-day laboratory coordination meeting attended by all 12 district laboratory focal persons discussed a laboratory assessment report and agreed on critical areas. Three more laboratory hubs were established in the Eastern region, namely Kapchorwa, Pallisa and Masafu hospitals; and the necessary equipment to perform the expected laboratory tests for the hub level was procured. District recruitment of laboratory staff was assisted by SDS project; while STAR-E was in the process to employ 3 bike riders for sample collection from the referring facilities. With the

increase of the types and number of lab tests being performed, the volume of blood samples being referred to the JCRC reference laboratory in Mbale has been constantly declining.

STAR-E has maintained its support to the 12 project districts in **supply chain** management activities that included support supervision, mentorship and the adoption of the new Supervision Performance Assessment and Recognition Strategy (SPARS). The Project focused its efforts on capacity building of the Medicines Management Supervisors (MMS) responsible for managing commodities at the peripheral level. The web-based ordering of ARV medicines continued with all trained health management information system (HMIS) focal persons at the 12 districts being involved. STAR-E has also started monitoring the efficiency in the delivery of critical commodities, by measuring the lead time in delivery and the amount procured against the quantity ordered. The assessment found that 62% of the commodities were delivered late to the facilities; 21% were procured in less amount than what was ordered for; and in 10% of cases, commodities were "pushed" to the facilities.

During PY5, STAR-E improved the quality and utilization of **strategic information** at district and facility levels in diverse ways. Gaps in the revised Health Management Information System (HMIS) tools were addressed through procurement and distribution of registers, cards and summary reporting forms. This was combined with intense mentorship, support supervision and on-the- job training of health workers on the use of the MOH-revised HMIS tools. The Project also conducted a second round of Health Facility assessment and the fifth round of Lot Quality Assurance Sampling (LQAS) community survey, which informed programming for next year. STAR-E also designed and started the implementation of operational research on the Option B+ approach at 36 supported facilities in order to measure the retention into treatment of ARV-naïve pregnant mothers. Under the area of documenting best practices, STAR-E will be presenting two oral presentations and three poster presentations at the international ICASA conference in December 2013.

Quality improvement (QI) activities focused this year on SMC, ART, PMTCT and TB services. Activities included capacity building and coaching of health workers; integrated support supervision of QI teams and technical support for their QI-related activities; and collaboration with Ministry of Health and other implementing partners in conducting joint QI mentoring in selected facilities and evaluating their performance over time. A baseline assessment of the 22 SMC sites within the STAR-E area highlightedt hat SMC services needed to align all sites with national guidelines and standards to help achieving the SMC targets. STAR-E also participated in the second National Quality Improvement Conference and enabled all DHOs in its operation area to attend.

Networking at the national, district and community levels remained a critical component of the Project. STAR-E has been actively represented at national forums and technical working groups. At the district level, jointly with the Strengthening Decentralization for Sustainability (SDS) project, quarterly integrated mentorships, coaching, and supportive supervision were conducted in all the 12 district health facilities. STAR-E participated in the formation and the launching of 60 more family support groups (FSGs) in the 12 districts. The importance of FSGs in conjunction with the implementation of eMTCT is even greater in their self-help, advocacy, and peer support roles. The project continued facilitating PLHIV monthly meetings and case managers continued receiving the technical and logistical assistance to serve as reference points between the health system and the communities, now assisted and complemented by the 264 linkage facilitators recently trained.

Strategies to **increase the demand** for health services included talk shows and radio spots. Health education and mobilization sensitized communities about the benefits of SMC and the necessary effort to eliminate MTCT of HIV. Posters, clients' factsheets and a leaders' advocacy handbook on eMTCT were printed and distributed to different beneficiaries. On the occasion of International Women's Day, Budaka Health Center IV conducted a health fair that offered health services such as HCT, cervical cancer screening, SMC, family planning, condom distribution, and ART enrolment.

Table 1: Summary of PY 5 Annual Results for Core Indicators

Indicators	Result	Annual Target	% Target Achieved	Comments
HCT				
Individuals tested	355,160	487,009	73%	Frequent HIV test kits stock-outs affected the indicator performance
Tested as couples	13,794	152,240	9%	Target apparently set too high. Couple testing not yet fully implemented
PMTCT				
Tested new ANC	117,268	121,950	96%	Very close to the set target
Received ARVs for PMTCT	4,346	4,375	99%	Very close to the set target
Chronic care				
New patients enrolled	8,089	22,897	35%	Target overestimated given the actual HIV prevalence and the people tested
New pregnant women enrolled	1,369	4,375	31%	Late start of Option B+ strategy. Inadequate recording & reporting.
CD4 tests performed	22,242	22,897	97%	Very close to the set target
ART				
New patients enrolled	4,326	9,194	47%	Late start of Option B+ strategy. Inadequate provision of CD4 tests
Current ART clients (total)	10,385	20,980	49%	The output is affected by the lower than expected # of new clients recruited.
Current ART clients (children)	916	3,618	25%	The output is affected by the lower than expected # of new clients recruited.
TB & TB/HIV				
Case detection rate	50%	65%	77%	Poor suspicion index by clinicians. Limited lab capacity in ZN technique
Treatment success rate	82%	85%	96%	Very close to the set target
Tested for HIV	93%	100%	93%	Very close to the set target
MARPs				
Individuals reached	9,827	12,970	76%	The # reached is more realistic after the MARPS size estimation
Condoms distributed	2,803,760	2,341,440	119%	Target surpassed due to project's efforts in procuring more condoms
SMC				
Men circumcised	73,926	90,000	82%	Lack of SMC kits affected the first two quarters of implementation

HCT = HIV counseling and testing; PMTCT = prevention of mother-to-child transmission; ANC = antenatal clinic; ARV = antiretroviral medicine; ART = antiretroviral therapy; MARP = most at-risk population; SMC = safe medical circumcision.

INTERMEDIATE RESULT AREA 1: Increasing Uptake of Comprehensive HIV & AIDS and TB Services

IR 1.1 Increasing Uptake and Access to HIV Counseling and Testing Services

STAR-E continued to work with districts, health facilities, communities, and partners to increase access to quality HIV counseling and testing (HCT). Diversified approaches to HCT services have been employed to increase the service coverage and meet the different demands of the targeted groups.

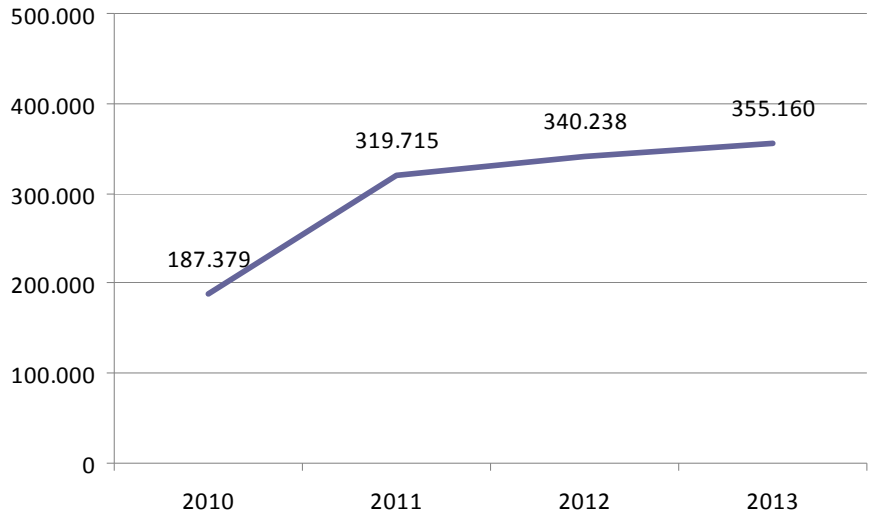
To reach out to more children, health facilities conducted HCT through child health days, postnatal clinics, and young child's clinics that mother-baby pairs usually attend. HCT was also provided during the commemorations of World AIDS Day, World TB Day and International Women's Day that took place at various districts. A wellness day held at Budaka health center (HC) IV attracted several people and more than 500 individuals were tested for HIV and linked to safe medical circumcision (SMC), care and treatment, and other preventive services within the same facility.

HCT was done for TB suspects and confirmed TB cases at TB diagnostic sites and chronic care clinics. STAR-E subcontracted the Amalgamated Transport And General Workers Union (ATGWU) to access most at-risk populations (MARPs) with HCT at its "safe stop centers" in Mbale and Busia. Moonlight HCT was also conducted by ATGWU in Busia targeting commercial sex workers. Kween, Bulambuli, and Kibuku districts were supported by STAR-E to conduct integrated HCT outreaches in underserved areas such as the sloped areas of Mount Elgon.

In order to increase access to HCT, health workers from 33 facilities were trained on the job to offer provider-initiated counseling and testing (PITC) through the Ministry of Health (MOH)-supported continuous professional development program. HCT policy guidelines were disseminated during mentorship visits to health workers.

Despite some recurrent challenges in the HIV test kits provision, the number of individuals tested for HIV has constantly increased over the years (Figure 1).

Figure 1: Individuals tested for HIV who received their result in STAR-E supported sites, 2010-13



In project year (PY) 5 the HIV prevalence in the region, as measured at the various HCT sites, remained less than 3%, with some district-specific differences. The lowest prevalence was found in

Kween, at 1.2%, while the highest was in Busia, at 5.2%. These findings seem to substantiate the relatively low prevalence already detected in the Eastern region during the national AIDS Indicator Survey in 2011, recognizing that people presenting for HCT do not necessarily represent the general population, so their results need to be interpreted cautiously.

The percentage of people who were tested for HIV in the past 12 months and received their results is a good approximation of the population knowing their current HIV status. In 2013, the number of individuals eligible for HIV testing (15–49 years) in the region was estimated to be 1,270,145, of which 413,898 (33%) were tested in either HCT (296,630) or prevention of mother-to-child transmission (PMTCT) settings (117,268). This is rather consistent with the 2013 Lot Quality Assurance Sampling (LQAS) survey finding of 40% of respondents in the 15–49-year-old group (47% of women and 33% of men) who reported having received a test in the last year. This marked a significant increase of this indicator among the overall population from 30% in 2011.

Challenges

The main challenge was the critical shortage of testing kits, as those supplied through the National Medical Stores (NMS) fell short of the orders by different health facilities. As a response, the project worked with NMS to secure an emergency supply of testing kits that were taken to all the 154 STAR-E-supported health facilities. A strategy was also put in place by STAR-E in conjunction with affected districts to redistribute commodities from facilities that had substantial stocks to those without.

IR 1.2 Increasing Uptake of Prevention of Mother-to-Child Transmission Services

The hallmark of PMTCT interventions for PY5 has been the roll out of the Option B+ strategy in the 12 supported districts, with the goal of expanding the coverage of more efficacious PMTCT interventions to eliminate mother-to-child transmission by 2015. Option B+ is the provision of lifelong highly active antiretroviral therapy (HAART) to all identified HIV-positive mothers regardless of their WHO (World Health Organization) clinical staging or CD4 counts, combined with provision of a short course of antiretroviral medicines (ARVs) to the exposed babies for a period of six weeks. The package also includes routine counseling of mothers on infant and young child feeding in the context of Nutritional Assessment and Counseling to ensure an HIV-free survival for the exposed babies.

The Uganda First Lady and the American Ambassador visiting the STAR-E exhibition booth at the eMTCT launch in Tororo

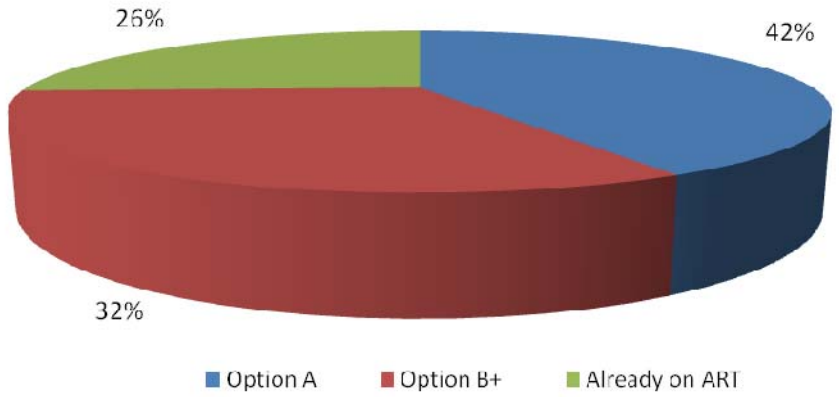
The Option B+ rollout model was comprised of the following components:

1. The project's PMTCT implementation plan was redesigned to align it with the MOH-led scheduled timelines for countrywide implementation.
2. STAR-E and the MOH carried out pre-Option B+ site assessments for accreditation and for updating the MOH database of PMTCT sites.
3. The project also procured health management information system (HMIS) tools and equipment in all supported sites. The first lot of ARV drugs were allocated by the MOH and distributed to all sites by STAR-E prior to the start-up of the strategy implementation.
4. The project trained 36 regional trainers, who then trained 991 health workers of different cadres in intensive district-based didactic training sessions with guidance from MOH and the project.
5. The project contributed to the sensitization of 536 district leaders from the 12 districts using district entry meetings to raise awareness of eMTCT (elimination of mother-to-child transmission of HIV) and its benefits. The public was informed as well through scaled-up media campaigns, community dialogue meetings, and IEC (information, education, and communication) material.
6. STAR-E eventually conducted post-training mentorships at 154 sites to coach health workers, verify adherence to policy guidelines, and address any logistical challenge.
7. On August 16, the Option B+ strategy was officially launched for the region in Tororo at an event attended by the First Lady of Uganda together with the American Ambassador to Uganda and more than 5,000 people.

After five months of Option B+ implementation in the region, 154 health facilities (6 hospitals, 16 HC IVs, 126 HC IIIs, and 6 HC IIs) provide PMTCT services. Of the 154, a total of 141 sites have been assisted in establishing family support groups (FSGs) to provide psychosocial peer support mechanisms and strengthen linkages with the communities.

A total of 117,268 mothers have been counseled, were tested, and received results. Of these, 2.9% (3,372) tested positive and approximately 1,400 knew their HIV-positive status prior to their pregnancy. Of all the 4,346 HIV-infected pregnant women, 1,824 were put on other PMTCT combination regimens (Option A) during the first seven months of implementation; 1,408 were enrolled into Option B+, while 1,114 were already on ART before accessing antenatal care (Figure 2). Additionally, 1,860 HIV-positive mothers accessed family planning services during the year.

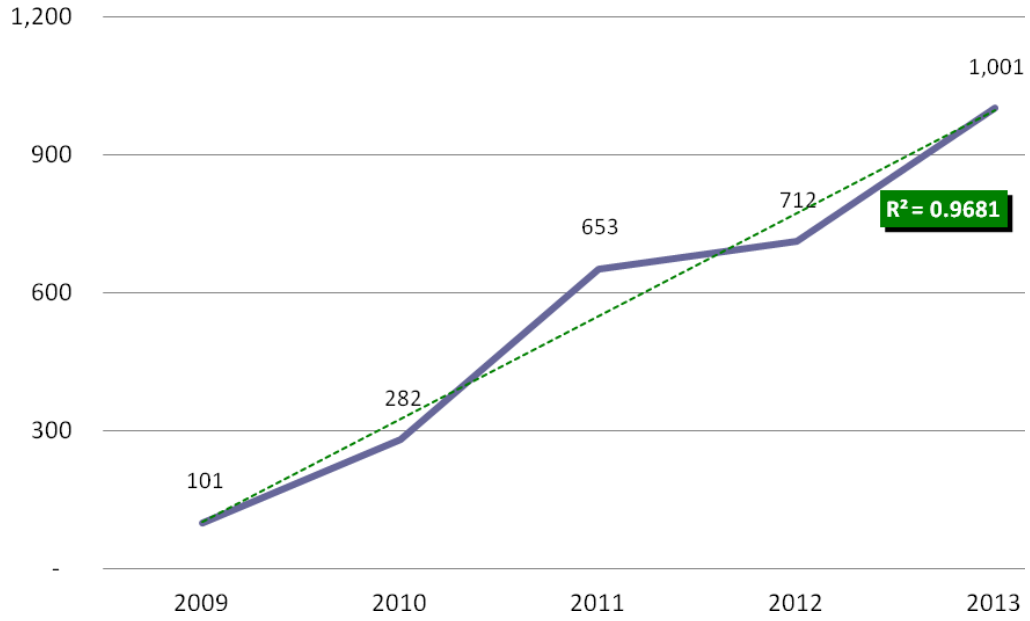
Figure 2: Breakdown of PMTCT regimens provided to HIV-positive mothers in FY 2013



The 2013 LQAS survey substantiated the finding that access of pregnant mothers to PMTCT services in the region was remarkably high: despite their low knowledge of mother-to-child transmission (MTCT) mechanisms and ways of prevention, 87% of women reported having received an HIV test result while pregnant in their past year, compared with 76% in 2012.

The service expansion to lower-level sites combined with the adoption of more efficacious treatment regimens under Option B+ strategy have significantly contributed to reduce the number of mother-to-child-transmitted new HIV infections over the years, as demonstrated by Figure 3. Using the MTCT rate calculator devised by the President's Emergency Plan for AIDS Relief (PEPFAR)*, we estimated that in FY 2013 alone, PMTCT interventions contributed to averting over 1,000 new infections among babies in the region.

Figure 3: New HIV infections averted annually through PMTCT interventions, 2010–13



Challenges

The non-availability of Nevirapine syrup in most facilities—whose limited stock was even close to expiry—has greatly limited the provision of ARV prophylaxis to the HIV-exposed babies identified. Also, the prolonged stock-outs of HIV test kits in most facilities was the main barrier in testing pregnant mothers at antenatal clinic (ANC) and maternity settings. The complexity in the various reporting mechanisms by the sites has created several problems, especially affecting the newly introduced weekly short message service (SMS) reporting and the understanding of the Option B+ specific indicators. The upcoming rounds of mentorship will help address these problems.

The current design of HMIS tools renders the computation of the mothers known to be HIV-positive before accessing ANC extremely difficult, thus making the assessment of PMTCT coverage hard to interpret.

* PEPFAR Indicators, Reporting Requirements, and Guidelines. Indicators Reference Guide FY2007 Reporting/FY2008 Planning, July 2007, pp 156–7.

Reaching out pregnant mothers with Option B+ Strategy in Busia Health Center IV

The Maternal and Child Health department of Busia Health Center IV relies on three midwives to manage a busy department that serves the population of Busia municipality and people coming from neighboring Kenya.

Ms. Lydia Nakalyango is a midwife who works in the Maternal and Child Health department as the only qualified staff during day duty, while her two colleagues do the night shifts. Lydia routinely takes care of the antenatal clients while paying special attention to the labor ward for any mothers delivering. She is also on standby to care for any new baby referred to early infant diagnosis..

On average, 380-400 new pregnant mothers come to the health center for antenatal care on a monthly basis, of which about 20 are found HIV-positive. These numbers are almost comparable to a high volume hospital.

The workload at the health center has intensified after the training of all midwives on Option B+ strategy and its implementation across the facilities. Lydia counsels the mothers individually on Option B+, a strategy that provides all HIV+ pregnant women with antiretroviral therapy, and refers them to the family support group for psychosocial support. In the past four months, Busia Health Center has initiated 130 mothers on Option B+, the highest number among all of the STAR-E intervention sites.

Asked how she manages the work of three midwives she says, "It is all about determination and attitude. I realized that even if I complained, I would end up doing the job all by myself so I decided to set a strategy on how to attend each area, by attending to the busiest first and the others next. I update the registers later in the afternoon when work is lighter and very early in the morning before mothers arrive."

Lydia says the training and continuous coaching she received from STAR-E on Option B+ has helped her better manage her clients. She is glad to be working in a clean and welcoming environment with all the necessary equipment for monitoring pregnant mothers and is proud of the quality of care she is able to offer to both mothers and babies. She is now capable of interpreting clinic data, and has started a new quality improvement project for the department tracking critical indicators on retention in care of the mother-baby pairs she is assisting.

IR 1.3–6 Increased Uptake of Comprehensive Services to Prevent Sexual Transmission of HIV

Promotion of HIV Prevention through Sexual and Other Behavioral Prevention Strategies

In PY5, religious leaders and community-based volunteers maintained their engagement in promoting HIV combination prevention among community members with an emphasis on HCT, safe medical circumcision, and eMTCT. They utilized social functions, places of worship, organized religious groups, and home visits as a platforms to disseminate HIV preventive messages, inform people of behavioral strategies to prevent HIV, and refer people to HIV-related services. They counseled couples to avoid risky behaviors such as extramarital relationships, early marriages, and consuming alcohol, which all increase people's vulnerability to HIV infection. They encouraged parents to talk to their children about sex and reproductive health to promote healthy behaviors and promote abstinence. In addition, they also urged teachers of both primary and secondary schools to always integrate HIV prevention messages into school health programs. During the above activities, they used and distributed IEC materials printed by STAR-E for their encounters with community members.

Religious leaders and community volunteers participated actively in mobilizing communities during HCT outreaches. They worked closely with the health workers and case managers to ensure that individuals referred for HCT accessed the service; offered risk reduction counseling to those who tested negative; and also referred and often accompanied young men to access SMC services.

"*Demonstrations sessions on food preparation for mothers have greatly helped to reduce malnutrition among children*", said Florence Auma, an Evangelist in the Seventh Day church of Busia District who doubles as a Village Health Team (VHT) member. With the knowledge and skills she has acquired, she conducts community level trainings and follows up on the trainees in their respective homes to check on the nutritional status of their children.

In addition, they carried out regular home visits to follow up on individuals and to encourage those on treatment to adhere to the prescribed therapy. They informed clients and their family members about family support groups (FSGs) which provide continuous counseling and information on HIV, family planning methods, nutrition and positive living. Religious leaders interacted with FSG members for spiritual counseling and provided material support in the form of soap, salt, sugar, and food to some HIV-affected families.

STAR-E staff conducted regular district-level meetings for religious leaders and other community-based volunteers, during which members reviewed activities conducted during the quarter, and discussed their achievements and challenges. These meetings provided a good opportunity to inform and prepare all community volunteers for the rollout of the Option B+ intervention. A sensitization meeting on Option B+ was also held for 280 cultural and religious leaders in the Eastern region, with the aim of making them part of the community mobilization strategy.

Promoting Risk Reduction among Key Populations

STAR-E HIV prevention efforts concentrated on the drivers of the epidemic, the MARPs, who include commercial sex workers (CSWs) and their clients, truck drivers, the fisher folks, youths out of school, and discordant couples. In line with the MOH HIV combination prevention strategy, HIV preventive messages were delivered to the MARPs and the general population by trained MARPs peer educators, religious leaders, HIV expert clients, and Village Health Teams.

The project reached 9,827 MARPs among the key target populations of CSWs, fisher folks and truck drivers with combination HIV prevention messages during PY5.

The whole prevention intervention aimed to reduce HIV exposure through risky behaviors, in particular having multiple and/or concurrent sexual partners; and adopting protective behaviors like correct and consistent use of condoms with partners of unknown HIV sero status.

Condom promotion and distribution were still an integral part of the prevention strategy. The number of people who reported using condoms in the region is still low. The recent 2013 LQAS community survey found that only 51% of respondents who had had a sexual encounter with a non-marital partner had used a condom, despite knowing that condoms can reduce the risk of HIV transmission. A low rate of utilization was also observed among MARPs. From the peer educator review meetings and interviews held with them, it was found that most CSWs were not able to negotiate the use of condoms with new or less regular clients. In addition, the use of female condoms that were introduced to them sharply declined over time due to several reasons, such as cited difficult use and inconvenience during the sexual intercourse.

To counter complacent attitudes and make condoms available where they are mostly needed, the project distributed more than 2,800,000 condoms in 346 traditional and non-traditional condom distribution outlets like bars, lodges, nightclubs, and boda boda stages.

During the year, the project commissioned a rapid assessment and response analysis for HIV prevention services for MARPs in the region to review the existing MARPs strategies, collect information on the estimated size of MARPs in the region, and suggest future undertakings within the existing interventions.

"*I now value life more than money. Some of us didn't know about protection at all and we did not even care. I can now stand up for myself against men that want live sex and I can also use female condoms if they refuse to put on theirs*." CSW peer educator, Busia

In addition to already-known MARPS like the CSWs, truckers, and fisher folks, the assessment identified two emerging high-risk groups: hostel girls who engage in sex work within Mbale town and road construction workers in Mbale and Kapchorwa. Recommendations were given for future planning on how best to scale up MARPs-specific services and strengthen linkages at the facility and community levels and with other MARPs service providers.

Prevention with Positives

During PY 5 there were some remarkable achievements in promoting prevention with positives (PwP) interventions at both the health facility and community levels. The project training of an additional 218 people living with HIV (PLHIV) as linkage facilitators (LFs) was a great boost in the passing of relevant positive-living messages to individuals and families infected with and affected by HIV and AIDS.

After the eMTCT program was rolled out in 154 health facilities, the LFs were deployed in these facilities and joined the existing 46 case managers in supporting improvement of the continuum of care for PLHIV and also in promoting PwP interventions in the surrounding communities. This has happened through interpersonal and group counseling on clinic days, paying particular attention to non-adhering clients, and clients with behavioral issues that needed specialized care and attention.

Both LFs and case managers continued to receive technical and logistical support from the project and the health workers, and this boosted their morale to intensify their efforts in educating their peers on positive living. They have been instrumental during ART clinic days in counseling clients on adherence, following up the lost ones and counseling them to return to care, updating clients' files, weighing clients, counting and packing pills for refills, monitoring infants and children for growth and nutrition, and giving health education. In some cases, they extended their support to other departments in the health facility, such as the outpatient unit, maternity, and even into the wards to counsel clients.

In the community, their roles are sensitizing the community on general health matters and referring community members for SMC and other services. In PY5, a total of 23,226 HIV-infected individuals (over 9,000 male and 14,000 female) were reached with the PwP intervention package.

Cervical Cancer and Breast Cancer Screening

In PY5, the project decided to expand the successful cervical and breast cancer screening to all women of reproductive age, after initially targeting HIV-positive women and women in sero-discordant relationships. While providers and targeted beneficiaries viewed this service with excitement, some challenges hampered its provision. In some high-volume sites, like Kapchorwa and Pallisa hospitals and Muyembe and Busia HC IVs, the transfer of some of the staff trained in the visual inspection with acetic acid (VIA) screening procedure left a big gap that could not easily be filled.

Other factors that interfered with regular service delivery included the irregularity in supply of consumables, the lack and/or inadequacy of basic equipment such as vaginal speculums, sponge-holding forceps, infection control items, and examination beds.

Safe Medical Circumcision

During PY5, STAR-E intensified the scale-up of SMC services as a way to lower the risk of HIV infection. In the Eastern region of Uganda, where it is commonly performed as a process of initiating the youth into maturity, SMC is a culturally familiar concept. Its uptake as a cultural practice has certainly influenced the "reservoir" of potential beneficiaries of SMC. The 2011 AIDS Indicator Survey showed that 53% of sexually active men in the mid-Eastern region reported to be circumcised; the LQAS survey conducted by STAR-E in the region found that 70% of youth 15–24 years old were circumcised. The target assigned to STAR-E for PY5 was 90,000 individuals to be provided with circumcision, of which the majority was expected to come from the non-circumcising districts.

In PY5, the project started by utilizing mainly facility-based teams at 20 facilities to provide SMC service through routine weekly SMC surgical activities. Around midyear, the static teams were supplemented by five district-based SMC-dedicated teams in the non-circumcising districts of Budaka, Kibuku, Pallisa, Butaleja, and Busia to reduce the workload of the overstretched facilities. The Makerere University Walter Reed Project (MUWRP) was contracted to train all five dedicated teams in SMC operations. All teams, comprised of four clinical officers (surgeons), four theater nurses, and two counselors, were trained during the year and deployed in their respective districts. On-site assessment and mentorship was conducted by MUWRP to support the teams while in the field of operation. These teams—properly equipped and mandated to focus on lower health facilities—also provided a platform for reaching MARPs.

SMC Operation in Masafu Hospital, Busia district

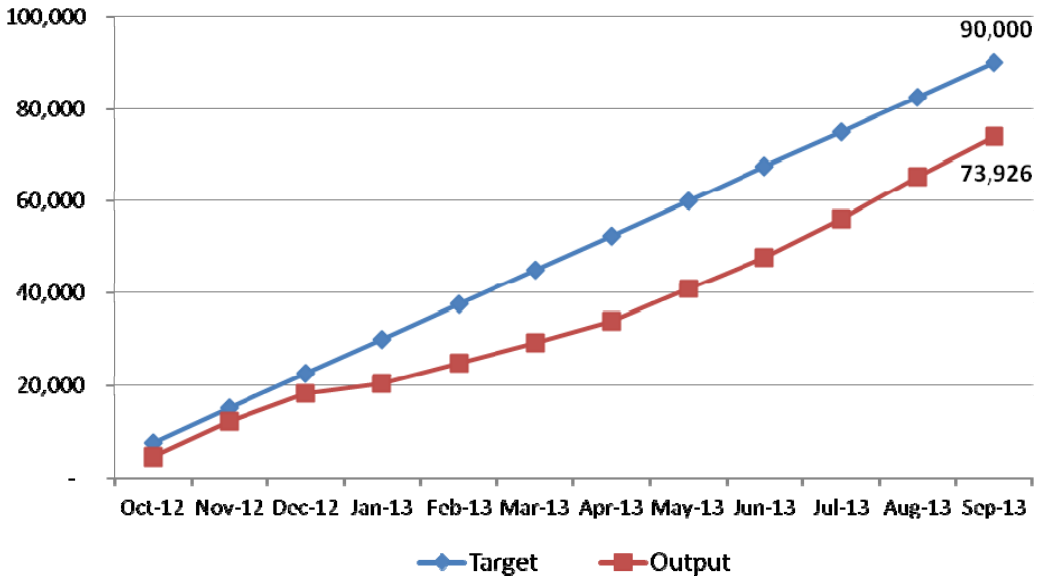
To further increase the service uptake, seven selected sites started conducting SMC during regular outreach activities in lower-level health facilities where adequate space and utilities were available. The duration of each outreach varied from one to two weeks, depending on the demand and the estimated catchment area. These outreaches, accompanied by intensified mobilization, were conducted in communities with documented low SMC prevalence MARPs.

STAR-E procured SMC equipment for all the 20 static facilities and five dedicated teams guided by the MOH minimum standards procedures. The US Agency for International Development (USAID) continued to support the project with disposable kits and assorted drugs and consumables. Emergency resuscitation equipment centrally procured by USAID was also distributed to the static sites, based on the gaps found during the initial assessment. Overall, the project experienced a relatively regular supply of all SMC commodities.

The project enhanced demand creation through activities to raise awareness and give accurate information to the target communities by using the Village Health Teams (VHTs). It also continued to collaborate with cultural leaders through dialogue meetings to engage them in sensitizing on the benefits of SMC and mobilizing the communities for increased uptake of SMC services. Support by district political leaders was also sought for a harmonized approach and coherent messages sent to the population.

The mobilization strategy was complemented by the adaptation, printing, and disseminating of MOH-designed SMC IEC materials. Radio talk shows were also conducted to inform the communities and address myths and misconceptions around SMC.

Figure 4: SMC monthly targets and results at STAR-E-supported sites, 2013



In 2013, the project provided SMC to almost 74,000 males, representing 82% of the annual target of 90,000 individuals. The scale-up of this service was greatly accelerated in the last few months (Figure 4), especially after deploying the five dedicated teams. Table 2 shows that since the introduction of SMC in STAR-E-supported districts in 2010, approximately 40% of the needs for this service have been met.

Table 2: Estimate of the need for SMC service provision met in the Eastern region, 2013

Projected 2013 regional population	Male population (48.7%, UBOS)	Male eligible (46.4%, UBOS)	Already circumcised (53%, AIS)	In need of SMC	Provided with SMC (2010-13)	% of need met
2.608.100	**1.270.145**	**589.347**	**312.354**	**276.993**	**109.966**	**40%**

Assuming 19–40 circumcisions are required to avert one HIV infection, we can presume that, so far implementing this intervention has contributed to the prevention of 2,700 to 5,800 new HIV infections in the region.

These results shows that it is possible to implement a high-volume, high-efficiency SMC program through the model for optimizing volume and efficiency (MOVE) in populations with low levels of male circumcision and high HIV prevalence as long as key inputs and supply efficiency elements are in place. Effective demand creation, dedication of space and staff, training of service providers, and availability of commodities with an efficient supply chain management system are all required inputs for a successful SMC program.

Challenges

During the year, SMC services had to be suspended in three facilities. In Pallisa hospital, this happened due to significant weaknesses in accountability documentation and quality assurance practices. A remedial action plan was developed with the hospital quality improvement (QI) team and good progress is being made in addressing the gaps. Activities were suspended also in Muyembe and Busiu HC IVs because they lacked qualified SMC teams after the trained staff had left the facilities.

The stock-out of condoms has also been a constant challenge, hence putting sexually active PLHIV at risk of re-infecting themselves, and exposing the general population to the risk of being infected with HIV.

Safe Male Circumcision dedicated team increase access to service in Budaka District

In response to the Government of Uganda's initiative to provide safe male circumcision (SMC) as an essential health service within the HIV combination prevention, STAR-E has supported 12 districts to institute SMC in selected sites since 2011. After meeting with the district leaders to explain the intervention and its goals, the project trained health workers from the designated facilities and conducted a SMC informational campaign through radio programmes and community volunteers.

However, many men could not access services at static facilities. This prompted STAR-E to institute SMC teams in districts that did not traditionally circumcise men. SMC teams—composed of four clinical officers (surgeons), four nurses (assistant surgeons), and two counselors—were trained to offer SMC services at lower health units, thus bringing services nearer to clients. They also conducted surgical camps to meet the increasing demand for SMC.

The Budaka team completed their training in February 2013 and started their surgical activities in April 2013.
Team cohesion is ensured by clearly assigning responsibilities to each team member. The team leader prepares the surgical schedules, checks quality of services, and oversees ordering SMC supplies. He keeps the team together by making sure all members follow their duty roster as scheduled, and maintains good communication between the team and its supervisor. The teams also hold regular meetings to reflect on their performance and report to Budaka Health Center IV and to STAR-E.

As a result of the training and structured follow through, SMC services have increased significantly at Budaka Health Center IV. Between April and September 2013, the dedicated team provided SMC to 4,209 individuals, compared to 1,269 men reached at the static site. They attribute their success to hard work, dedication, and enthusiasm about working together They are encouraged by the increasing number of people registered for SMC, and they hope to continue reaching more clients and contribute to preventing HIV transmission.

IR 1.7 Increasing Uptake of Pediatric HIV & AIDS Services

Improving access and quality of pediatric HIV care and treatment programs continued to be a priority for the STAR-E project in its supported districts. The activities mainly addressed the so-called "red flags" that had been indicating low performance in crucial pediatric indicators such as HIV-exposed infants given Nevirapine prophylaxis, those given co-trimoxazole prophylaxis, those tested for HIV, and infected children newly enrolled on ART.

In a bid to scale up pediatric HIV care and treatment, STAR-E trained 36 district-based mentors (DBMs) to build the capacity of the other health workers in the STAR-E-supported districts through mentorships and support supervision. With support from MOH, STAR-E trained 24 DBMs as regional quality improvement coaches who are to work with facility health workers to strengthen the quality of services with particular attention to the early infant diagnosis (EID) care points. The training of over 1,000 health workers in eMTCT had a positive effect on pediatric services, since pediatric HIV care and treatment was incorporated in the training package.

STAR-E has also institutionalized the use of MOH yellow stickers. These stickers are placed on files of children eligible for antiretroviral therapy (ART), as a reminder to the health workers to liaise with the linkage facilitators for follow-up, and start the children on ART. The stickers have been distributed to all the 36 ART sites and the staff orientated on how to use them, while ongoing mentorships kept emphasizing their use. Adoption of presumptive diagnosis job aids has also been encouraged so as to increase the number of children initiated on ART presumptively, as facilities await their DNA PCR results to confirm the HIV sero status of the children.

As mentioned above, STAR-E recruited and trained 218 linkage facilitators, who were then posted to the different pediatric service points within the health facilities, so as to escort identified HIV-exposed babies and HIV-positive children to access services from the EID care point and ART clinic, respectively. The linkage facilitators also followed up children who had been lost to follow-up and linked them back into care.
The project utilized family support group available in 141 sites to increase the enrollment of HIV-exposed and -positive children into care and treatment. As the mothers get enrolled into the FSGs, they are continually encouraged to bring their other children below 15 years for HIV testing.

When possible, children are given first priority at the clinics during clinic days. Emphasis has also been made to ensure that at least once in three months, the HIV-positive children are reviewed by a clinician, so as to adjust the doses of their ARVs, assess for any opportunistic infections, monitor growth and development, and refer them to networks for orphans and vulnerable children (OVC) within the communities. Efforts have been also made to ensure that the HIV-exposed babies always receive Nevirapine prophylaxis and co-trimoxazole according to the national guideline.

National care and treatment guidelines and the new versions of the MOH-designed HMIS tools were printed and distributed to 154 sites. Equipment such as weighing scales, height boards, MUAC (mid-to-upper-arm circumference) tapes, and blood pressure machines were also procured and distributed to the different health facilities, after which continuous mentoring has contributed to build the confidence of the health workers in the use of such tools.

The family support groups and the facility based linkage facilitators have identified OVC among the PLHIV already on care and treatment. The project's efforts have focused on these children accessing basic health care services such as immunization, growth and development monitoring, nutritional assessment, and counseling to the caregivers. STAR-E representatives held discussions with other OVC-program implementing partners to explore channels for referrals for other social services, including provision of the basic home care kit packages.

This year, 360 children below 15 years of age were newly enrolled into ART. Remarkably, the number of active clients on ART among this age group has increased by 48% since last year, reaching

916 active clients. This represents the 9% of all clients active on ART across all STAR-E-supported ART sites. Additionally, the number of children on treatment in slightly more than half (51%) of those active on chronic care; this is a significant improvement from the 25% of the first three project years.

Challenges

Stock-out of Nevirapine syrup for prophylaxis and the short shelf life of the little stock available have both been serious challenges. Test kits and co-trimoxazole pediatric formulation were also in short supply, affecting the coverage of HIV services to children. Some facilities have not been following the national guidelines on the use of the appointment book and the EID referral book, thus failing in tracking children lost to follow-up; this should change as a result of the pediatric QI training. The process of accreditation of HC IIIs by the MOH to offer ART has been slow, and hence HIV-positive infants are still being referred to other sites that offer ART and are being lost in the process.

IR 1.8 & 1.9 Increasing Uptake of Care, Treatment, and Support Services

STAR-E continues to support districts, health facilities, and partners to extend quality care and treatment services. STAR-E works with 154 health facilities where screening for HIV, management of opportunistic infections, co-trimoxazole prophylaxis, and screening for TB has been done. Of these, only 36 are currently accredited to offer comprehensive HIV care and ART and have the full range of different ARV regimens, while all 154 provide ARVs for Option B+. The process to accredit another 100 ART sites has taken off and the project is waiting for a response from MOH. In preparing for the site assessment, equipment, job aids and integrated guidelines have been given to all facilities.

District-based mentors provided mentorship to improve the skills of service providers in all 154 facilities, but they intensified their mentorship for those facilities identified as being poorly performing. The approach of using established district-based mentors has increased ownership by districts to the extent that the District Health Officers (DHOs) of Kapchorwa, Pallisa, Butaleja, and Kibuku have also participated in the mentorship activities.

There has been no shortage of ARVs during this financial year and all drugs were received through the designated warehouses based on periodic orders made by facilities.

More HIV-infected clients were linked into care over the subsequent quarters, especially after the deployment of the linkage facilitators (Table 3).

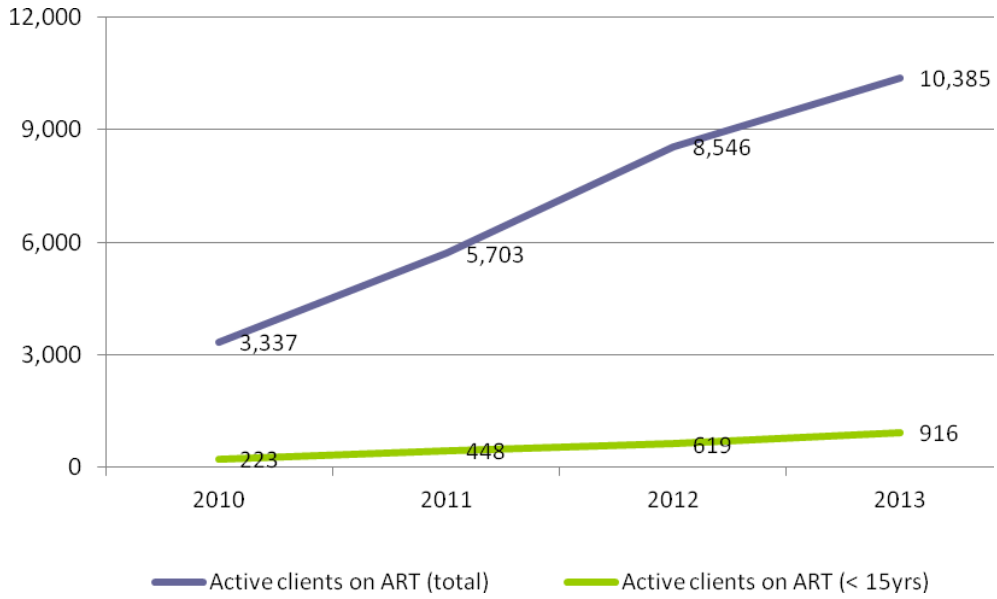
Table 3: New HIV-positive individuals detected and new clients enrolled into care by quarter, 2013

Period	New HIV+ detected	New clients enrolled into Care	Coverage (%)
Quarter 1	3,095	1,759	57%
Quarter 2	3,087	1,970	64%
Quarter 3	2,571	1,891	74%
Quarter 4	3,218	2,469	77%
TOTAL	**11,971**	**8,089**	**68%**

Enrollment into ART has improved in PY5. Although 31% of all eligible clients were not put on ART, the supported sites registered an aggregated number of 4,326 new ART enrollments. The HIV clients active on ART have increased from 3,337 in 2010 to 10,385 in 2013 (Figure 5).

Assuming 50% of all HIV-positive clients are expected to be eligible for ART under the existing national policy guidelines, the current provision of ART covers the 71% of the estimated need for antiretroviral treatment in the region.

Figure 5: Trend of active ART clients in STAR-E-supported sites, 2010–13



Challenges

There was a shortage of cartridges for CD4 machines during the middle of the year; the problem was resolved by supporting lower-level facilities to send their samples to the three hubs (Busolwe, Masafu, and Kapchorwa hospitals) and to the Joint Clinical Research Centre (JCRC) regional centre of excellence to minimize the gap in ensuring that no opportunities for determining ART eligibility and monitoring of patients got missed.

Also, stock-outs of some essential drugs like dapsone and co-trimoxazole have affected the provision of comprehensive care services by health facilities.

Managing the ART Clinic more efficiently: the experience of Busolwe Hospital

Busolwe general hospital started offering ART services in 2003 with support from Baylor College of Medicine and with assistance from STAR-E has provided comprehensive HIV/TB care since 2009.

The hospital receives patients from neighboring districts such as Tororo and Budaka thus increasing the catchment population benefiting from the health care services at the hospital. The ART clinic has gradually expanded its clientele and by September 2013 it was serving 1,508 HIV-infected clients, 701 of whom receive ART. Despite the potential challenges in handling such high numbers, the clinic team feels confident in their ability to manage an ever-growing number of people in need.

The ART clinic is managed by Micheal Mwangale, a Senior Clinical Officer, together with three nursing officers and two nursing assistants. Three case managers employed by STAR-E, two volunteers, and six expert clients assist the team.
In the past, the ART clinic was open once a week and the clinic staff used to work until 6 p.m., and were exhausted at the end of the day. There are now two clinic days when the assess eligibility of new clients and enroll them in services, manage opportunistic infections, and attend to patients who are ill. Tuesday is reserved for antiretroviral refills and Septrin refills are provided on Thursdays. Drug requests are submitted to the hospital pharmacy on Fridays for the upcoming week and all drugs are pre-packed on Monday. . Difficult cases are admitted to the hospital wards or referred to other hospitals for further management.

"*The clinic is no longer as difficult and congested as it used to be. We have reorganized it after carefully thinking through and the 2 clinic days in a week work well. These days we can clear all our patients by 2.00 P.M. Our next plan is to improve on recording clients' information in our clinic registers,"* said Mr. Mwangale.

IR 1.10 Increased Uptake of TB and TB/HIV Services

The STAR-E TB strategy for PY5 aimed at increasing the TB case detection rate (CDR) up to the national target of 70% and the treatment success rate (TSR) to the WHO-recommended figure of 85%. In addition, the project endeavored to support implementation of TB/HIV collaborative activities as set by the national policy guidelines.
In doing so, STAR-E has employed the strategies of capacity building, advocacy and coordination with public and private partners involved in TB control activities, and adoption of evidence-based practices as the overarching principles of its support to the districts.

The interventions to increase TB case detection included expansion and consolidation of the diagnostic network in all 12 districts through increased access to TB microscopy services by procuring microscopes; supporting training of microscopists as an interim measure to address laboratory human resource shortage; and facilitating District Laboratory Focal Persons (DLFPs) to undertake support supervision and quality assurance of the diagnostic units (DUs).

In conjunction with the Strengthening Decentralization for Sustainability (SDS) project, STAR-E assisted all District TB and Leprosy Supervisors (DTLSs) to conduct quarterly support supervisions to all health units and monthly mentorship to the facilities in more need of support. The supervision intended to improve the knowledge and skills of health workers in the identification of TB suspects, the clinical management of TB/HIV co-infected cases, and record keeping.

To enhance the accuracy and completeness of TB recording and reporting, STAR-E printed adequate stocks of the MOH-recommended intensified case finding (ICF) forms and job aids. These tools have been used by the health workers, VHTs, and peer educators to standardize identification and referral of TB suspected cases to diagnostic facilities.

In a quest to improve the TB TSR, the project has revamped the community-based (CB)-DOTS approach in all the supported districts. The sub-county health workers (SCHWs) trained in previous years—who are the backbone of CB-DOTS—have been both assisted financially to conduct their routine activities and field visits and technically supported by the health workers and the DTLSs.

Institutionalization of TB/HIV collaborative activities has been enhanced by quarterly mentorships and support supervision of the health workers previously trained in comprehensive HIV care and treatment. There have also been concerted efforts to ensure availability of the necessary consumables, including HIV test kits, co-trimoxazole tablets, laboratory reagents, and ARV and anti-TB drugs.

The LQAS surveys carried out annually in the region indicated that there has been minimal improvement in community knowledge about TB. Between 2010 and 2013, the individuals who knew at least two signs and symptoms of TB increased from 58% to 68%; those who knew that TB is curable slightly rose, from 74% to 78%; and knowledge on how TB is transmitted has remained stagnant at around 74%. During PY5, community awareness and demand creation for TB services were addressed by the use of radio talk shows on four radio stations that cover the entire project area and film shows during World TB Day.

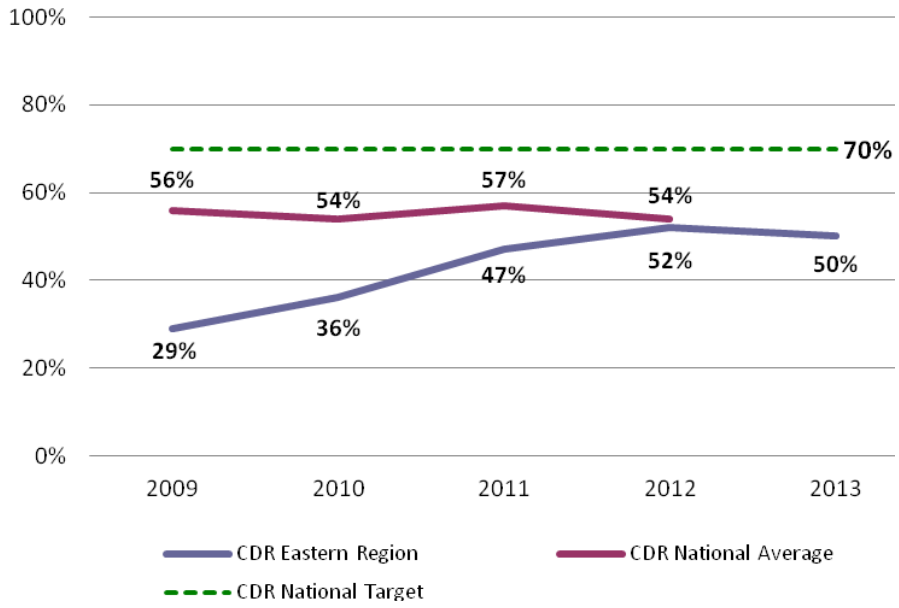
With regard to multidrug-resistant (MDR)-TB, STAR-E procured specimen carrier boxes for the TB specimen referral system to ensure they are available in all health facilities. Support supervision has also played a pivotal role in preventing the occurrence of MDR-TB by making sure that TB patients are treated under DOTS so as to complete their treatment and that defaulting cases are tracked and put back into treatment.

The project continued to support DTLSs and DLFPs to attend the quarterly zonal meetings, where quarterly TB reports are presented and validated, and performance in TB control is assessed and compared across the districts.

Progress toward reaching the TB control program national targets has not been uniform across the various TB indicators.

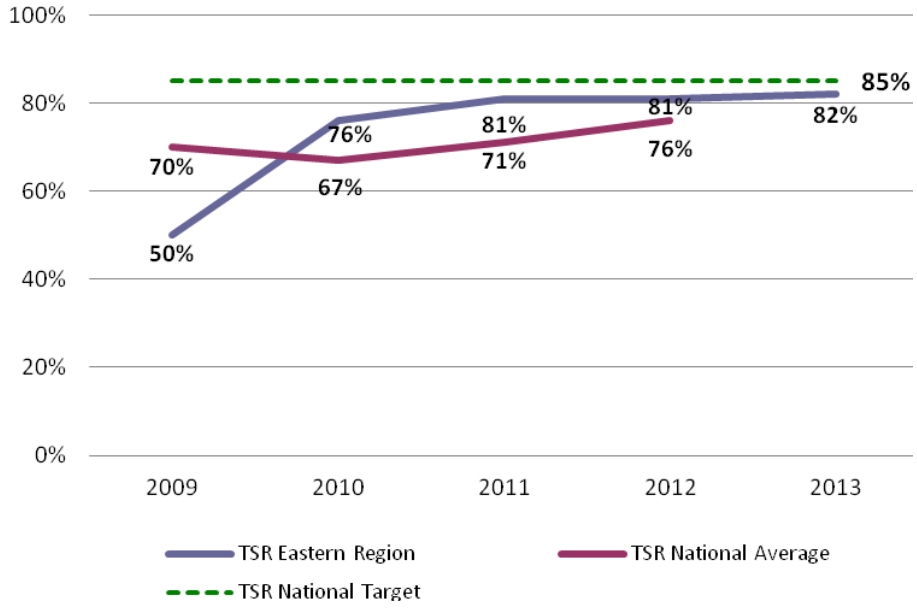
The TB CDR has progressively improved from the baseline average of 29% to an average of 50%, short of the national set target of 70% (Table 6). Some of the reasons for this relative CDR stagnation include: (1) low public/community awareness about TB disease, diagnosis, and treatment and poor health-seeking behavior; (2) low index of suspicion for TB among health workers especially compounded by the high turnover of health workers; and (3) under-utilization of the ICF approach in both health facilities and communities. In addition to that, the STAR-E sub-region has a relatively low HIV prevalence and it is likely that the expected TB infections in the region are overestimated.

Figure 6: 2009–13 trend of TB CDR in the Eastern region compared with national average



The TB TSR now averages 82%, up from 50%, but still falls short of the national target of 85% (Table 7). The cure rate is even lower at just over 40%. The main reasons for the TSR stagnation include high default rates in some districts, non-documentation of transfers across districts, and gaps in the follow-up sputum examinations at the end of treatment for patients diagnosed with smear-positive pulmonary TB.

Figure 7: 2009–13 trend of TB TSR in the Eastern region compared with national average



The implementation of TB-HIV collaborative activities has improved tremendously: in 2013, the proportion of TB patients tested for HIV was 93%, while the proportion of TB-HIV co-infected patients started on co-trimoxazole was 98% and the TB-HIV co-infected patients enrolled into ART reached 61%.

Challenges

Low and erratic access to diagnostic services in some of the supported districts remains the main challenge hindering TB case detection. Treatment success has been held back by the complex case management in those districts that share borders with Kenya because of cross-border migration. The disparity between facilities that provide ART and those that provide TB treatment has been the main problem in TB-HIV collaborative indicator (ART for TB-HIV co-infected patients).

INTERMEDIATE RESULT AREA 2: Decentralized Service Delivery System Strengthened for Improved Uptake of Quality HIV/TB Services

IR 2A: LQAS Survey Institutionalized at the National Level to Support and Coordinate District-Level Implementation

Coordination activities continued to be central in the institutionalization of LQAS in order to ensure a synchronized response at the central and district levels. The component worked with its partner Liverpool Associates in Tropical Health (LATH) and implementing partners to complete the 2012 consolidated LQAS report, to share the 2012 survey experiences, and plan for the 2013 surveys. The quarterly coordination meetings provided an opportunity to clarify the roles of the different partners, and strategies for improved LQAS application and data use. Various meetings were held with central government ministries (Ministry of Local Government [MOLG], Ministry of Gender, Labor, and Social Development [MGLSD], and MOH) officials and program managers to seek guidance on the processes and share LQAS results. Training of LQAS at institutions of higher learning was promoted. Discussions between Makerere School of Public Health (MAKSPH) and Uganda Christian University led to sharing of the training curriculum, and the training of students commenced in February 2013.

In PY5, the LQAS component supported 66 districts to complete their annual surveys, which were conducted between April and August 2013. In 2013, over 10 districts completed their fifth round of surveys and the SDS contributed financially to the second round of surveys in 35 districts. STAR-E LQAS provided the financial support for the third round of the 11 STRIDES-supported districts and one NU-HITES (Northern Uganda Health Integration to Enhance Services) district to complete their survey. Also, STAR-E LQAS supported three implementing partners to undertake health facility assessments in their districts. A total of 306 district staff were trained to collect data in 453 health facilities in 12 STAR-E, 13 STAR-SW and 9 STAR-EC districts.

A major accomplishment during this period was the submission of LQAS indicators results to USAID and the 2012 consolidated LQAS community survey report, which was enriched with GIS (geographic information systems) maps, indicator performance across districts, and graphs showing time trend performance.

STAR-E LQAS in collaboration with MGLSD introduced the OVC facility assessment. This assessment, the first of its kind, was based on 31 OVC-related standards and indicators. It focused on inputs and processes that ensure delivery of quality OVC services, assessing the following: knowledge, availability, and utilization of policies, standards, and guidelines; knowledge and capacity of the service providers; and care and support systems, structures, and resources. Respondents include district and sub-county community development offices, technical staff of nongovernmental organizations (NGOs), civil society organizations (CSOs), and the family protection unit of the police.

The objectives of the assessment were to provide complementary data on OVC care and support to LQAS survey data, OVC MIS, and other routine data; and to build the capacity of districts teams to assess and supervise performance of OVC care and support service delivery points. The OVC facility assessment tools were tested in Sironko district and will be rolled out in Eastern Uganda by end of 2013. The results revealed lack of guidelines for OVC services at the service points, lack of mechanisms to coordinate, supervise, and make effective referrals among the various services providers. Many service points lack staff with training required to address OVC issues. Poor information management systems and supervision by the district officers to CSOs are a serious problem noted in the findings.

To support capacity building for sustainable LQAS application at the district level, a number of training materials and guidelines were produced and used by the district teams during various district trainings. The LQAS trainer's and participants' manuals and the LQAS quality assurance guidelines were useful resources for standardizing procedures and ensuring the quality of the processes. The

National LQAS Facilitator (NLF) training manual was finalized and distributed to NLFs to assist them during training. Seventy-three NLFs previously trained, in 2010 and 2011, received refresher training and were certified under the auspices of MLG in February 2013.

Various products in addition to the consolidated 2012 survey report were produced, packaged, and shared with partners at various levels to promote accessibility and use of the results. District summary result posters, regional charts, and OVC indicator charts were printed and distributed to all the 73 participating districts, ministries, implementing partners, and other partners.

The component produced four quarterly newsletters and 12 success stories to highlight districts' experiences for sustainable use of the LQAS methodology and the resulting data. All these documents are available at the LQAS website (www.starelqas.co.ug), which continues to function as a hub for sharing LQAS materials and reports.

The database contains LQAS survey data since 2003. In partnership with LATH, it was upgraded to produce automated LQAS tabulated district results. This has significantly reduced the time needed for preparing district-specific reports, and the 2013 reports are now ready. A database for OVC facility assessment was also developed.

Another milestone this year was the regional information-sharing meetings, organized in collaboration with implementing partners. Three regional meetings were organized for (1) East and Central regions, (2) South Western and Western regions, and (3) Eastern, Teso, and Karamoja regions. The meetings provided a forum for districts and other partners to share experiences and good practices. They also provided opportunities to discuss strategies for institutionalization of LQAS methodologies in providing relevant data for planning purposes. (See text box on page 41)

An innovative part of promoting use of LQAS data has been the completion of Service Performance Assessment and Improvement (SPAI-lite) guidelines. SPAI-lite is intended to guide districts in the use of LQAS hand-tabulated results. The two-day process leads to completion of district action plans that are implemented over a period of three to six months. The tool was tested in Masaka district and rolled out in three NUHITES and four STAR-SW districts.

Challenges

The main challenge during this period was the withdrawal of SUNRISE and the closure of Uganda Civil Society Fund/Monitoring and Evaluation Agent (CSF/MEA) projects from supporting their respective 12 and 10 districts in undertaking the survey. Districts also continue to have challenges of supervising the district-led LQAS processes to ensure quality and utilization of results for decision making.

Regional Information Sharing Meetings
A Learning Platform for Sustaining LQAS in Districts

In August and September 2013, STAR-E LQAS and its implementing partners organized regional information sharing meetings for several districts. The meetings provided a forum for districts, partners, and ministry officials to share information and experiences of implementing LQAS, health facility assessment (HFA), and of using the resulting data. The participants included representatives from key line ministries, implementing partners, CAOs and district technocrats, national LQAS facilitators, STAR-E LQAS staff, civil society, and academics.

Several districts shared experiences on how they have used the data gathered through LQAS to support interventions. For example, Jinja district reported that one of their key service providers used LQAS results as its baseline. In Iganga, the district's HIV strategic plan was based on LQAS results. Sembabule district said that after analysing their immunization results and taking remedial actions, their immunization coverage increased from 19% to 40%. In Bushenyi district, the two sub counties with the lowest performance in water and sanitation were selected to participate in the rollout plan of the Uganda Sanitation Fund (USF) Project. Kayunga district created an M&E budget line in an effort to institutionalize LQAS at the district level. The district is also building the capacity of community-based organizations and local NGOs in LQAS application as a sustainability strategy.

Districts unanimously agreed that LQAS processes must be integrated into routine district M&E activities. They also suggested a structured and phased co-funding between implementing partners and local governments to limit dependence on partners' funding. The meetings were a great opportunity for districts, partners, and civil society to learn from each other and reflect on what is needed to sustain LQAS in the districts.

IR 2.1 Strengthening Human Resources for Health

During PY5, the STAR-E Project efforts in training human resources for health (HRH) focused mainly on Option B+ implementation, with facility-based mentorships serving as the mainstay of our capacity building efforts across the districts (Table 4).

The MOH and PEPFAR also conducted recruitment of health workers for the public sector and a few private not-for-profit facilities. Of 1,032 positions advertised during the year, 935 (91%) have been filled. As a result, across all districts there has been some increase in the number of health workers available in the public sector, with Mbale district having the highest staffing level in the region (82%) while Bududa district has the lowest (32%).

Table 4: Training activities conducted by STAR-E and training outputs, 2013

Training Subject	Designation of Health Workers Trained	No. Trained
Clinical Mentorship training of trainers (TOT)	Medical Officers, Clinical Officers, Nursing Officers & Midwives, Lab Technicians & Assistants	36
SMC training	Clinical Officers, Nursing Officers, Counselors (constituted into 5 dedicated SMC teams)	40
Option B+ TOT	Medical Officers, Clinical Officers, Nursing Officers & Midwives, Lab Technicians & Assistants	36
Option B+ training	Medical Officers, Clinical Officers, Nursing Officers & Midwives, Lab Technicians & Assistants	991
Orientation of Medicine Management Supervisors	District & Health Sub-district Supervisors	13 (from 5 districts)
Provider-Initiated Counseling & Testing	Medical Officers, Clinical Officers, Nursing Officers & Midwives, Lab Technicians & Assistants	217 (from 31 sites)
Option B+ M&E requirements	Biostatisticians, HMIS Focal Persons, Facility Records Assistants	36
Linkage Facilitators orientation	Community-Based Volunteers	218
Pediatric QI training	Medical Officers, Clinical Officers, Nursing Officers & Midwives, Lab Technicians & Assistants	143

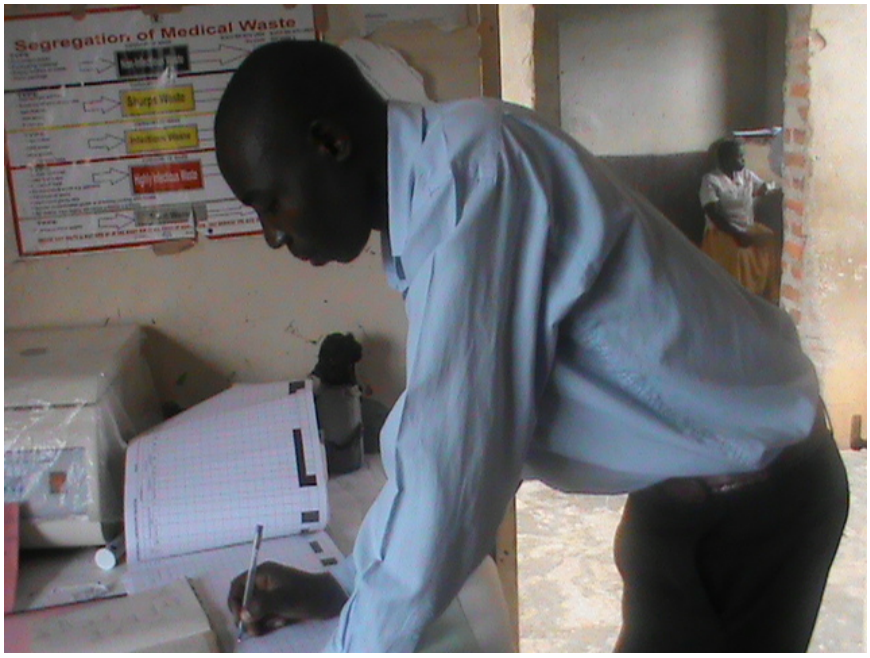
IR 2.2 Strengthen Laboratory Capacity

Laboratory services are critical for confirming clinical diagnosis and ultimately for effective patient management. A reliable and properly organized laboratory system not only helps in individual case management but also contributes to successful disease prevention and control.

During the reporting period, STAR-E supported specific activities in 115 facilities that have functional laboratory units. This has been done through concerted efforts by the project, the districts, and the MOH. The project has assisted in the maintenance of laboratory equipment, especially two Pima machines for Budaka and Busia HC IVs and the installation of the FACS CD4 count machines in Kapchorwa hospital. Additionally, the project has collaborated with the national supply chain through the NMS and Joint Medical Stores (JMS) to ensure availability of the necessary laboratory reagents and supplies for HIV testing, CD4 counts, sputum examinations, hemoglobin estimation, and other essential tests.

To build the capacity of the existing laboratory personnel, eight laboratory staff from Pallisa and Masafu hospitals were sponsored to attend the Strengthening Laboratory Management through Accreditation (SLMTA) training. The aim was to improve the quality of laboratory service provision by identifying poorly performing areas and tackling them with specific activities designed to address the weaknesses.

STAR-E also organized a regional meeting to present the current status of laboratory services in the region and discuss the main challenges being encountered. The DHOs and DLFPs for the 12 supported districts all participated and were offered for the first time a platform to share experiences and jointly propose feasible interventions to improve the quality of laboratory services provided.



The CD4 analyzer in Budadiri HC IV is helping health workers in ART enrolment

Regarding laboratory commodities, the project has on several occasions assisted health facilities in accessing laboratory commodities through redistribution from heavily stocked facilities, as well as aiding in collection of supplies allocated to the supported facilities from the national warehouses and repair of equipment.

Printing and distribution of laboratory-specific HMIS tools (registers and order books) was secured for 80% of the functional laboratories to improve on correct data collection and timely reporting.

In addition to Mbale Regional Referral Hospital, three more laboratory hubs were established in the Eastern region: Kapchorwa, Pallisa, and Masafu hospitals. A laboratory hub serves as a referral point for complex samples like dried blood spot (DBS), CD4, and sputum samples for MDR-TB, among others. In May, a team from MOH–Central Public Health Laboratory (CPHL)-supported by STAR-E conducted the preliminary assessment of Pallisa hospital in view of its upgrading, during which the lab was found to be poorly organized with dilapidated infrastructure and no available reception area. In response, space was identified for accommodating the new equipment procured and plans are under way to refurbish the laboratory. Additionally, the necessary equipment to perform the expected laboratory tests for the hub level (chemistry analyzers, hematology analyzers, and FACS count for Pallisa) was procured and will soon be delivered to the sites. Under human resources, district recruitment of laboratory staff is ongoing with SDS support; while STAR-E has initiated the process to employ three bike riders (one per each of the three new hubs) for sample collection from the referring facilities.

The project has supported laboratory services in the region through facilitation of laboratory sample referral to higher-level laboratories.

IR 2.3 Strengthen Commodities Management

During PY5, STAR-E maintained its support to the 12 project districts in supply chain management activities, including support supervision, mentorship, and the adoption of the new Supervision Performance Assessment and Recognition Strategy (SPARS). This strategy—developed by the MOH in partnership with the Securing Ugandans' Rights to Essential Medicines (SURE) program—is an integral element of the national framework and approach for capacity building of the HRH. It

involves, among other things, routine coaching, supervision, and evaluation visits to all health facilities implementing it. Applying SPARS offers two main advantages: on one hand, it can be a powerful strategy to build the necessary capacity on supply management; on the other hand, it also provides important information on supply availability from facilities on regular basis. The recognition component of SPARS is based on the field reports after a minimum of five visits and is given to the best-performing facilities as nominated jointly by the districts and partners.

STAR-E focused its efforts primarily on lower levels through training in logistics management and support supervision, in addition to offering technical assistance to district managers. The project liaised with the SURE program to build the capacity of the Medicines Management Supervisors (MMS) responsible for managing commodities at the peripheral level. The MMSs at the district and sub-district health levels have been critical in ensuring that health facilities prepare and submit in a timely manner the periodic orders for commodities using the Web-based system for ARVs and the printer forms for other essential health supplies.

The supply chain system has recently experienced issues of inadequate efficiency, which contributed to chronic stock-outs of some essential commodities in most health facilities. In these circumstances, STAR-E supported and facilitated districts to collect health commodities from the warehouses and prepare and submit emergency orders to minimize stock-outs, in addition to guiding those facilities with excess health commodities to redistribute them following MOH guidelines.

Pertaining to this particular challenge, STAR-E has started monitoring the efficiency in the delivery of crucial items as different ARV combinations, pediatric co-trimoxazole, HIV test kits, and reagents for CD4 count by the NMS. After sampling nine facilities from six districts, the lead time in delivery and the amount procured against the quantity ordered were assessed. Regarding cycle 2, about 62% of the commodities under scrutiny reached the receiving facility late (defined as a lead time longer than 30 days); 21% were procured in lesser amounts than expected (defined as a quantity below 90% of what was ordered for); and in 10% of cases commodities that were not ordered for were “pushed” by the warehouse to the facilities.

IR 2.4 Strengthening the District HMIS, Monitoring and Evaluation, and Operations Research

The fifth year of STAR-E project implementation saw a remarkable intensification of strategic information activities at both the program and district levels, in a quest to increase the availability, quality, and utilization of health data. In addition, more opportunities for sharing lessons learned were developed and utilized.

Strengthening the District HMIS

After the introduction of the revised HMIS tools, registers and summaries were printed and distributed to all supported facilities, alongside orientation and coaching of health workers on their use. In collaboration with the MOH, STAR-E organized a five-day training on data management to engage 36 staff who were biostatisticians, HMIS focal persons, and records assistants on the Option B+ specific reporting requirements. This was also an opportunity to talk with participants about their challenges in using the newly adopted HMIS tools.

Periodic data submission into the District Health Information System (DHIS 2) by districts improved over time. In July and August 2013, four of the 12 supported districts (Bududa, Bukwo, Butaleja, and Sironko) achieved 100% of timeliness and completeness in reporting their district monthly summaries (HMIS 105), while five more attained a result higher than the national average.

Through comprehensive coaching, on-the-job technical guidance was provided to improve quality of data in several health facilities from the supported districts by collaborating with the DHOs. To complement this coaching, data validation exercises were also supported to improve overall quality of

data. This was initiated in six PMTCT sites, under the guidance of the Monitoring and Evaluation of Emergency Plan Performance (MEEPP), where PMTCT data management system and methodology of report compilation were examined. Afterward, the activity was successfully replicated in 11 ART sites across the region to validate ART figures recorded in the recent quarterly reports.

Using quarterly review meetings as an avenue for discussion, members of the District Health Management Team (DHMT) discussed outputs and strategies to improve performance and overcome HMIS challenges faced by facilities. HMIS Focal Persons and district biostatisticians used these forums to prepare district reports on critical indicators and provide feedback on general data management.

The 2013 health facilities assessment and community LQAS survey were conducted to measure performance of critical health indicators across the region. Results from the survey highlighting low-performance areas were analyzed and disseminated at district-based meetings that were attended by local leaders, technical staff, health workers, and other partners.

Aggregated LQAS survey results were also utilized in monitoring the project performance and planning for PY6 intervention. Table 5 summarizes the findings for some critical indicators and their recent trend.

Table 5: Trend in selected HIV indicators as measured by LQAS survey, 2011–13

Performance indicator	2011	2012	2013
Individuals who knew two or more benefits of HIV counseling and testing	66%	71%	70%
Individuals who were tested and received an HIV result in the last 12 months	30%	*Not available*	40%
Mothers who were tested and received an HIV result in the last 12 months	73%	76%	87%
Individuals who had comprehensive knowledge on HIV transmission	27%	35%	37%

Operational Research

The STAR-E Strategic Information department designed and started the implementation of an operational research on Option B+ approach at 36 supported facilities in order to measure the retention into treatment of ARV-naive pregnant mothers. Being that Option B+ is a new approach, little is known about the short-to-medium-term retention rates of mainly healthy pregnant mothers who are enrolled into it for life. It is therefore crucial to promptly identify any problem related with treatment retention to establish a system that supports the mothers. Additionally, some of the potential variables associated with treatment retention will also be monitored and examined for their association with retention. Research assistants have been trained and deployed in the field where they have already conducted a first round of data collection. The study is expected to last until September 2014 to allow for longer follow-up time and more meaningful analysis.

In a quest for documenting and showcasing best practices, eleven abstracts (six from STAR-E and five from the LQAS team) were submitted to the prominent International Conference on AIDS and STIs in Africa (ICASA), scheduled to take place in South Africa in December 2013. Two papers have been accepted for oral presentations and three for poster presentations.

Monitoring and Evaluation

Assessment of M&E skills and capacity were conducted during field visits to 12 local organizations selected to receive performance-based grants, in order to support them establishing robust M&E systems and improving the quality of their reports to STAR-E.

Reporting is an integral part of the M&E program. As mandated, STAR-E met its periodic reporting obligations within the required periods to both PEPFAR and the Uganda Performance Reporting System.

Challenges

The frequent changes in the revised HMIS tools have posed several challenges to both health workers and record assistants who need intensive and regular coaching. Some districts still face serious challenges in attracting and retaining qualified staff for the biostatistician position, which affects overall district competence to manage the available health statistics and their interpretation.

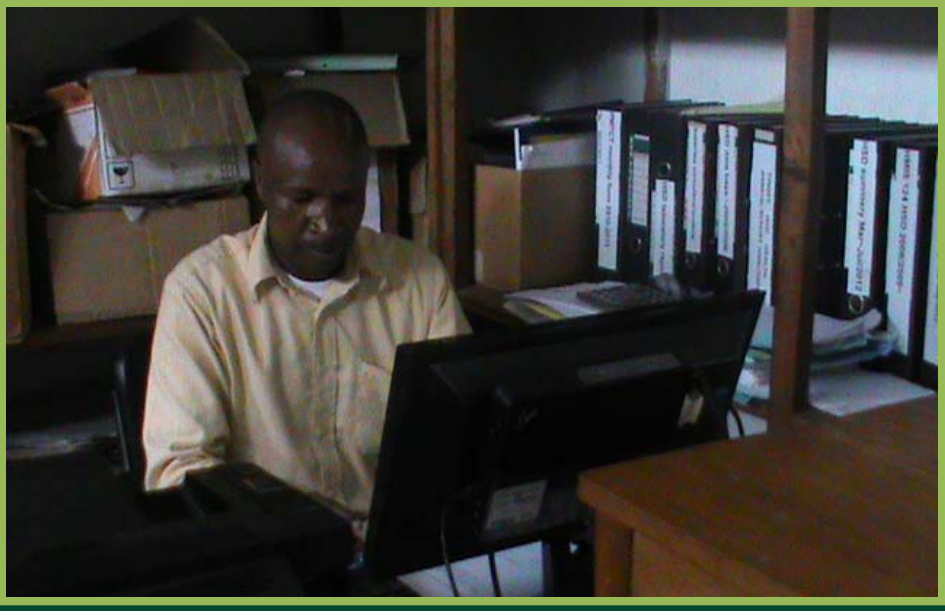
Improving On Data Use in Kapchorwa District Hospital

For the last four years, Martin Chemutai, the main records assistant in Kapchorwa district hospital, has been compiling data for the hospital's periodic reports, but he had never used this data to measure the hospital's general performance.

After attending the STAR-E-supported training on data management and utilization, Martin realized he could assess the hospital's performance through measuring selected key indicators over time. He shared his idea with the Medical Superintendent, who was supportive and suggested presenting the findings to a broad audience, including all department heads. The superintendent also proposed selecting indicators that were relevant to several service areas. These included service coverage indicators (DPT3 coverage, TB case detection and provision of PMTCT drugs to HIV+ mothers), quality indicators (survival on ART), and hospital efficiency indicators (bed occupancy rate, workload analysis) for a total of 12 indicators.

With technical assistance from STAR-E, Martin collected this data for the last few fiscal years and presented changes in the selected indicators over time.

In August 2013, Martin presented the results at a general staff meeting. The findings presented were very interesting. Participants discussed the findings openly, and identified areas of poor performance and ways of making improvements. Everyone agreed that similar review meetings should be performed on a quarterly basis for an even broader audience.
Martin is working enthusiastically to collect and analyze the data for the next review meeting.



INTERMEDIATE RESULT AREA 3: Quality HIV/AIDS and TB Services Delivered in All Supported Health Facilities and Community Organizations and Activities

IR 3.1 Improving Quality of Care

The quality improvement (QI) component of the STAR-E Project has been conducted in line with the national QI goal of improving quality of health care and patient safety while ensuring efficient utilization of available resources. During PY5, the main project efforts have been geared toward improving the quality of service delivery across all intervention areas. This included capacity building and coaching of health workers; integrated support supervision of QI teams and technical support for their QI-related activities; and collaboration with the MOH and other implementing partners in conducting joint QI mentoring in selected facilities and evaluating their performance over time.

The assessment of quality services has been based on routine HIV indicators generated by all facilities that constitute the so-called HIV continuum of response. This is a model used to identify issues and opportunities related to improving the delivery of services to HIV-positive people across the entire continuum of care. Its main objectives are to increase the proportion of individuals who know their HIV sero status; to increase the referral of HIV-positive people to care and treatment services; and ultimately to slow disease progression and improve quality of HIV-infected individuals. By attentively examining the proportion of PLHIV engaged in each of the stages of the HIV care continuum, service providers are able to pinpoint where gaps may exist in connecting them to care; and to put into practice service improvements that better support individuals along the continuum of care. By identifying gaps, access to and coverage of ART services is likely to improve alongside ART adherence.

Routine data have been collected from 10 facilities regarding HIV diagnosis, linkage to care, retention in care, and ART services provided to those eligible. The data below indicate that facilities need more efforts to institutionalize PITC, make sure all TB/HIV co-infected patients are started on ART, and guarantee that all those who start TB treatment have the periodic sputum testing performed while on treatment. On the PMTCT side, EID linkages need to be improved to make sure that all HIV-positive infants are linked to treatment.

During PY5, particular focus was placed on improving the quality of SMC because of the glaring gaps in service delivery in this particular area. Following a countrywide external quality assurance conducted by PEPFAR, it became apparent that SMC services needed to incorporate elements of quality improvement to measure improvement; align all sites with national guidelines and standards; and help achieve the SMC targets assigned. The major objectives for integrating quality improvement within SMC included (1) ensuring safety to both clients and staff and (2) ensuring the required minimum package of services are provided by all facilities.

In order to attain the objectives above, STAR-E has addressed different SMC areas, including management systems, supplies, surgical procedures, demand creation, and M&E.

The project has provided SMC policy documents and guideline to all static sites and dedicated SMC teams. The site teams have been guided in the making of an SMC service delivery plan and in assigning defined roles and responsibilities to their team members. The teams also received more frequent and specialized support supervision from the district, STAR-E, and Applying Science to Strengthen and Improve Systems (ASSIST) teams. Using a standard supply and equipment–ordering system, emergency supplies and equipment have been procured for all the sites and an inventory list of the critical supplies and equipment is available and is checked regularly. Commodities necessary for performing surgeries, such as client and staff linen, have been procured and distributed to all teams.

SMC surgical procedures were found to be performed adequately, especially where fully trained surgeons operate and written instructions for postoperative management are given to clients. Health

workers know that HIV testing is recommended but not required before SMC; and they refer to chronic HIV care service all men who test HIV-positive. Infection control supplies, including waste containers and biohazard waste bags, have been availed and are in use in all sites.

Also, all SMC-providing facilities use monitoring tools like HTC client card and registers, SMC registers, the HMIS 105 monthly summary form, and informed consent form for SMC clients. This has greatly helped in regularly submitting and processing routine SMC data for both PEPFAR reporting and project performance review.

Challenges

Staff turnovers have been a challenge for the regular implementation of QI activities since they hindered the full functionality of facility QI teams; hence the need to have a critical mass of health workers trained.

Facility and district QI reporting to the MOH is still through implementing partners, and hence health workers perceive it as project work. It would be beneficial if MOH integrates QI reporting into the general HMIS reporting system.

IR 3.2 Strengthening Clinical Mentoring Systems

During PY5, the project supported 36 district-based mentors (and six project staff) to attend the new MOH curriculum training on clinical mentorship. In addition, the same group was selected to attend the Option B+ training of trainers (TOT) and this enabled the project to roll out Option B+ training across 12 districts concurrently over a five-week period as well as conduct an Option B+ post-training mentorship across 154 health facilities using MOH guidelines and reporting tools. In between the Option B+ mentorship, project staff conducted targeted facility visits to strengthen all aspects of the HIV continuum of care (including PICT, linkage to SMC, chronic care and treatment, TB/HIV integration). The 36 district-based mentors (three from each district) have been allocated facilities and specific tasks to work on as they mentor lower-level facilities.

STAR-E led mentorship of health workers on ART data management in Kapchorwa hospital

INTERMEDIATE RESULT AREA 4: Networks, Linkages, and Referrals

The project has actively participated in national technical working groups (TWGs) such as the national advisory committee for Option B+, the CT17 HCT steering committee, the National QI Steering Committee, the National SMC TWG, the Pediatric HIV/AIDS Steering Committee, and the zonal TB quarterly meetings. It also took part in the condom coordination meeting organized by the MOH with support from the United Nations Population Fund.

At the regional level, the project has continued to participate and strongly invest in two district activities that leverage networking opportunities. These are the extended DHMT meetings and integrated support supervision of health facilities by the DHT—both of which occur on a quarterly basis. In the original nine project districts, these activities are supported through Grant A from the SDS project. In the three new districts, the STAR-E project directly supports these activities. The DHMT meetings have progressively become more structured (with a standing item on performance review), with the result that measurable and realistic action points are agreed upon. Integrated support supervision has improved the connection between health workers at facilities and the management team at the district.

The other major intervention that the project has supported is the Regional IP forum coordinated through the SDS project. Through this, all US Government (USG) implementing partners align their work plans to district priorities and sign a single memorandum of understanding with each district. During PY5, Sironko, Bududa, Budaka, Butaleja, Busia, Pallisa, and Bukwo have all progressed toward constituting a District Management Committee (DMC) and developing a District Operational Plan (DOP), thus marking a significant improvement from the previous year. This has enabled the district to better manage implementing partners, avoiding duplication and allowing negotiation for better coverage of services to underserved areas.

Community networks have continued to be an important component of the project in effective service delivery. Active participation and involvement of community representatives are critical factors for its members to take up a given service. During PY5, the project joined other implementing partners in discussions, moderated by the Capacity Project, about streamlining the roles and responsibilities and profiles of volunteers across all USAID/PEPFAR-funded projects. The final outcome was the operationalization of the concept of linkage facilitators, which STAR-E became one of the first implementing partners to pilot. First, the project offered technical guidance to health workers and district PLHIV forum coordinators on the concept and the roles this cadre is expected to play. Then it worked with them to identify PLHIV who could be trained as linkage facilitators. Through an open selection process, 218 volunteers were identified and taken through two-day orientation training together with 46 case managers. Their engagement as remunerated volunteers was formalized through a contract that they signed individually with the project, after which they were deployed in 141 health facilities, with the main aim of improving the continuum of response by strengthening intra-facility and community-facility referrals. These volunteers link clients from one service point to another, trying to overcome intra-facility losses to follow-up, clients' misunderstanding, and any stigmatizing attitudes. Through their networks of linkage facilitators across facilities and other community volunteers and PLHIV groups, they link their peers to other community services that may not be available at the health facility. In fact, their presence and participation in their communities is beginning to have quite an impact.

The project continued to provide logistics and technical assistance to family support groups (FSGs). Some of these groups have grown bigger and are on the way to transitioning into self-help groups. Monthly treatment support meetings for PLHIV were facilitated by the project, and issues needing urgent attention were identified at these meetings and dealt with on a case-by-case basis.

However, the year was not without challenges. The last quarter was particularly rainy, rendering access nearly impossible for the linkage facilitators to visit or follow up some of the clients in the community. Another issue that the project has been grappling with for a long time is the distance to

the health facilities for some of the clients, which causes them to drop off care. There are still some knowledge gaps among the volunteers in terms of Option B+ and eMTCT, yet they interact with mothers on a daily basis, and often get questions in this area. This will, however, be handled during the coming months as a priority.

PLHIV networks were instrumental in making World AIDS Day commemoration in Pallisa participative

INTERMEDIATE RESULT AREA 5: Increasing Demand for HIV/AIDS and TB Services

A combination of approaches, including interactive radio talk shows, interpersonal and community dialogue meetings, and dissemination of assorted printed IEC materials were employed by STAR-E to elicit demand for HIV and TB services, particularly so prior to the launch of the Option B+ strategy for elimination of MTCT. The project also participated in commemorating World AIDS and World TB Days in all 12 districts it supports, using this opportunity to sensitize the population on TB/HIV services.

On the occasion of International Women's Day—which coincided with the visit from the MSH board members—a health fair was organized at Budaka HC IV, where different health services (HCT, cervical cancer screening, SMC, family planning, condom distribution, ART enrollment) were offered at separate service points within the facility. This was a different example of a mobilization strategy to generate demand for health services, which proved to be successful and efficient in the way services were provided and integrated.

The 141 FSGs were used as a forum for participants to share information and receive psychosocial support. The FSGs also played a role in increasing clients' retention into care. The FSGs are also used to sensitize group members, their families, and the whole community on available HIV/TB-related services.

People queuing for HCT services at the health fair in Budaka HC IV

ANNEX 1: PY 5 DATA ON THE CONTINUUM OF RESPONSE

COP 12 TARGETS	
Total Pre-ART Care new + current adults	9,924
Total Pre-ART Care new + current children	343
Total Pre-ART	10,267
Total ART new + current adults	12,475
Total ART new + current children	2,071
Total ART	14,546
Total Care	24,813
TB Screening – 90%	22,332
TB Treatment – 3%	744
ART New Naive	4,810
PMTCT HAART	2,312
No. of sites	154
Total newly enrolled in care – FY13, Q1 (1)	1,506
Total number in care – FY13, Q1 (1)	6,634
Total number in care this quarter (2)	15,279
Number of children below 15 years current in HIV care in the quarter	1,789
Number newly enrolled into care this quarter	8,089
Number of children below 15 years newly enrolled into HIV care this quarter	627
Percentage of HIV-positive individuals linked into care from HTC	67%
Number on co-trimoxazole prophylaxis (3)	18,555
Total number of patients screened for TB	20,166
Total number of TB suspects (4)	
Total number found with active TB	760
Number who received basic care kits in the quarter	-
Number of HIV-positive malnourished clients who received TSF	-
Percentage newly enrolled into care this quarter	53%
Percentage of children in care	12%
Percentage on co-trimoxazole prophylaxis	121%
Percentage of patients screened for TB	132%
Percentage of TB suspects (4)	
Percentage of patient found with active TB (4)	4%
Percentage achievement for care target	62%
Percentage achievement of children newly enrolled in care	183%
(Lost) / transfers into care (2)	556
Total newly enrolled onto treatment – FY13, Q1 (1)	729

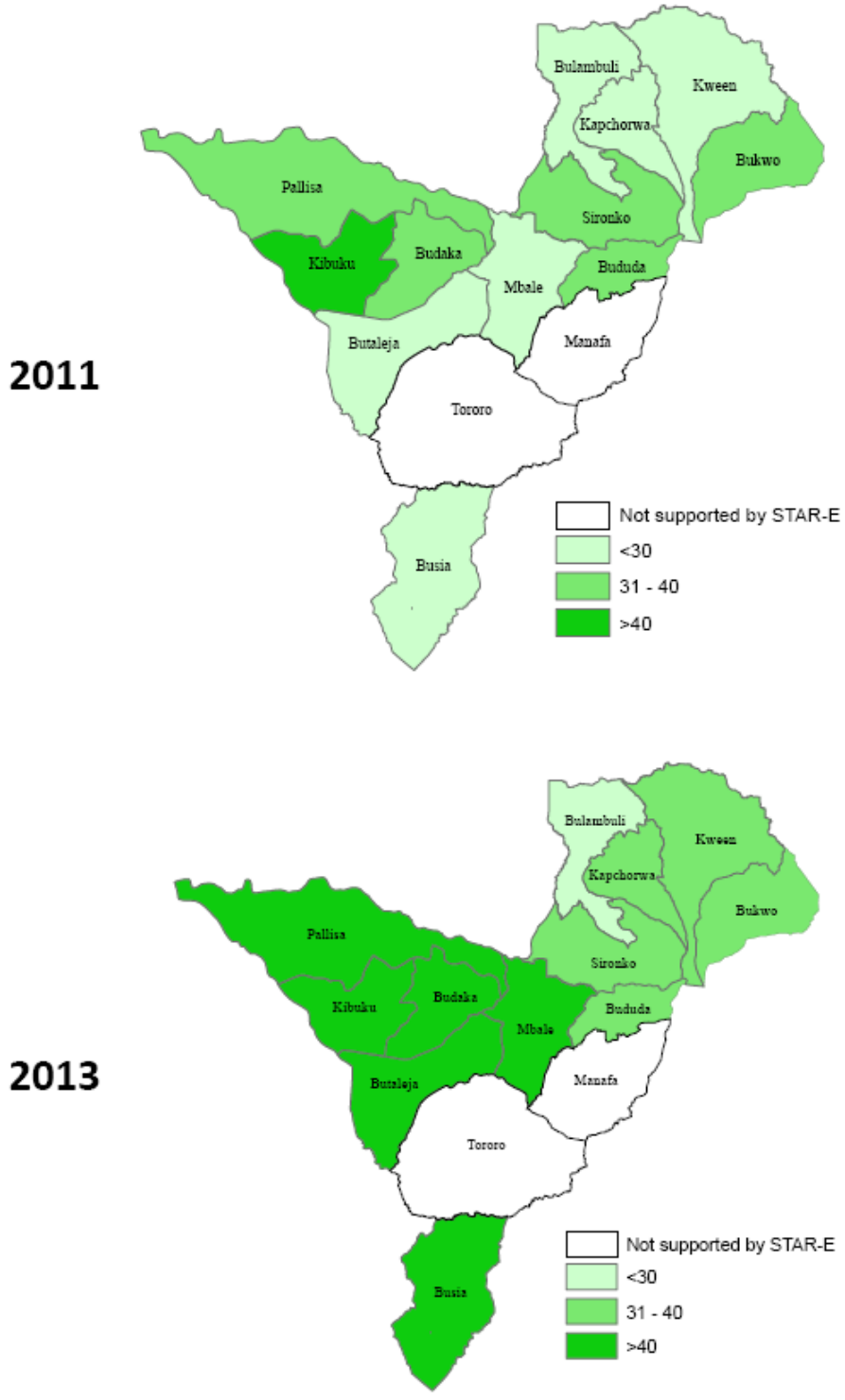
Total number on treatment – FY13, Q1 (1)	7,691
Total number current on ART in this quarter	10,385
Number of children below 15 years current on ART this quarter	916
Number newly enrolled on ART in this quarter	4,326
Number of children below 15 years newly enrolled on ART this quarter	360
Number of HIV-positive individuals started on Option B+	1,408
Percentage of TB/HIV co-infected started on ART	61%
Percentage of clients on ART	68%
Percentage of children on treatment	9%
Percentage of children in care that are on ART	51%
Percentage of client new on ART in the quarter	42%
(Lost) / transfers into ART	(1,632)
Percentage of patient on treatment	68%
Percentage achievement for ART-naive target	90%
Percentage achievement of children newly enrolled on ART	17%
Percentage achievement for Option B+ target	61%
Median CD4 for ART naives this quarter (5)	231

ANNEX 2: SMC DASHBOARD

KEY				
	>80% -Good	50 - <80%-Fair	<50% - Poor	Not assessed

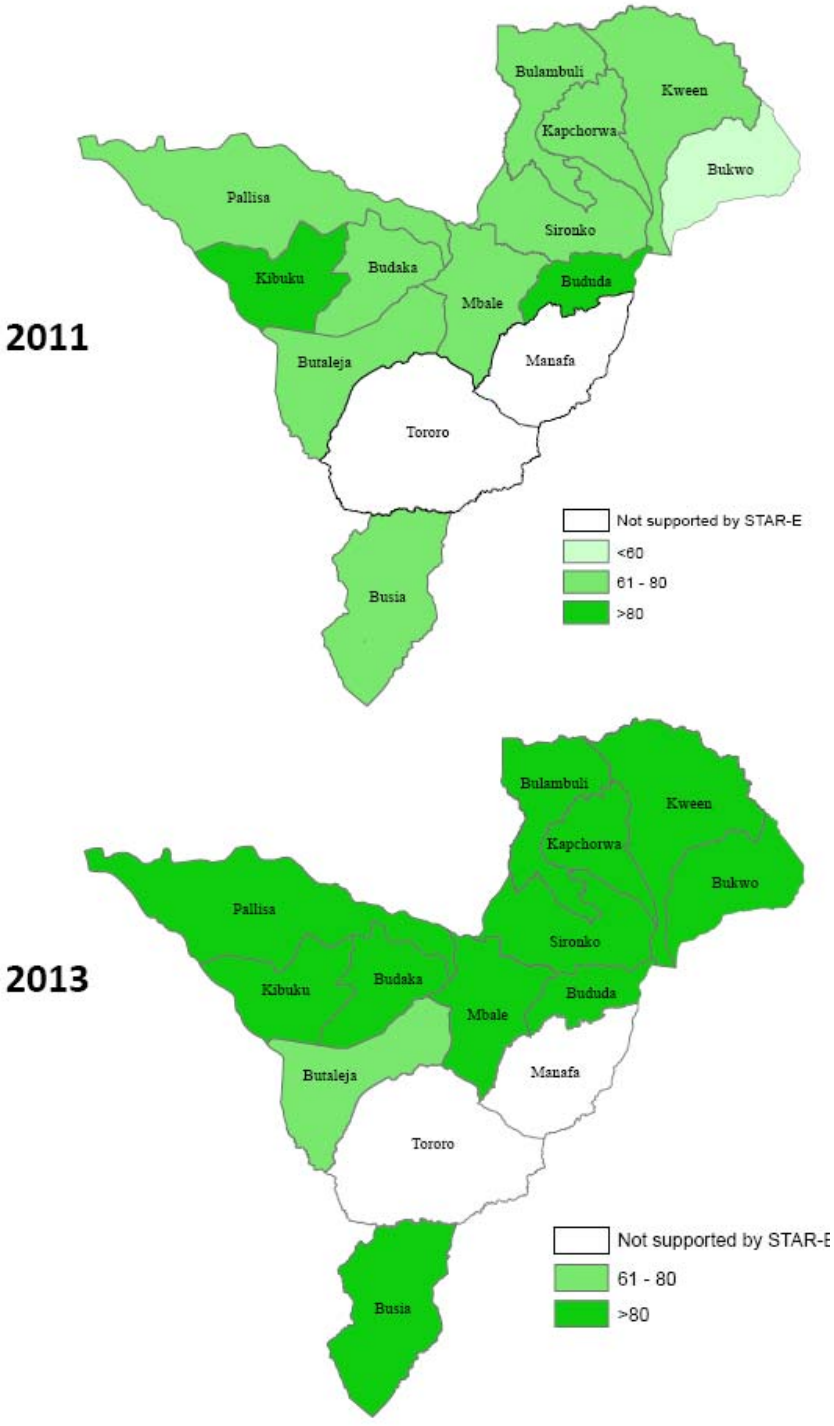
Health Unit	Mgt systems	Supplies & equipment	Group education & IEC	Individual HCT	Surgical procedure	M & E	Infection prevention
Budadiri HC4							
Bufumbo HC4							
Bukwo Hospital							
Bukwo HC4							
Bulumbi							
Busolwe Hospital							
Budaka HC4							
Busia HC4							
Butebo HC4							
Buwasa HCIV							
Bududa Hospital							
Dabani							
Kaderuna							
Kapchorwa Hospital							
Kaproron							
Kibuku HC4							
Lumino							
Masafu Hospital							
Nabiganda HCIII							
Pallisa Hospital							

ANNEX 3: Proportion of 15-49 years old individuals tested for HIV in the last 1 year by district, 2011-13



Source: LQAS community survey, 2011 and 2013

ANNEX 4: Proportion of pregnant mothers tested for HIV in ANC in the last 1 year by district, 2011-13



Source: LQAS community survey, 2011 and 2013